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ABSTRACT

This volume is organized according to themes chosen for the 30th Annual World Assembly of the International Council on Education for Teaching (ICET). A keynote speech by Anne Flowers discussed "Teacher Education for the Twenty-First Century." The first theme, "The Redesign of Teacher Education," was discussed through presentations by Anne Flowers, Willard H. McGuire, and Russell Leskiw. Frank H. Klassen and Arnold Gallegos made presentations for the second theme, "Teacher Education and Global Perspectives." "Educational Planning for the Twenty-First Century," the third theme, included papers by Mavis Gilmour and David Johnston. M. Peter McPherson, Raul Allard, and Romeo Flores Caballero presented papers about "Meeting Basic Human Needs," the fourth theme. The fifth theme, "Educational Technology: Enhancing Quality and Access," was discussed through papers by Joost Yff and Michael J. Butler, and William J. Grady. Each thematic section also includes abstracts of concurrent sessions. A paper by Paul H. Masoner and David J. Masoner, "Guidelines for the Redesign of Teacher Education," concludes the volume. (CJB)

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International Council on Education for Teaching

The International Council on Education for Teaching (ICET) is an international association of educational organizations, institutions, and individuals dedicated to the improvement of teacher education and all forms of education and training related to national development.

The Council is incorporated in the United States as a non-governmental organization (NGO) and has official consultative status with UNESCO. Membership in ICET is open to individuals,colleges, universities, government agencies, and private sector organizations who are engaged in educational and training activities.

The Council is governed by a Board of Directors and is provided with professional counsel by a Board of Trustees. Directors and Trustees are representative of the geographical, social, cultural, and professional diversity of the world. ICET activities are administered by an executive office located in Washington, D.C. which facilitates the cooperative projects of its members.

ICET conducts an annual World Assembly as a forum for the worldwide educational community on matters related to national development and teacher education, and publishes an annual volume of proceedings. ICET also provides technical assistance to educational systems and administers a management training program which provides educational leaders with internships in colleges, universities, private sector organizations, and government agencies.

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One Dupont Circle
Suite 616
Washington, D.C. 20036
(202) 887-0685
CABLE: ICETED

THE REDESIGN OF TEACHER EDUCATION FOR THE TWENTY-FIRST CENTURY

INTERNATIONAL PERSPECTIVES ON THE PREPARATION OF EDUCATIONAL PERSONNEL

Selected Papers
from
The Thirtieth Anniversary World Assembly
Washington, D.C., U.S.A.
July 11-15, 1983

Editor: Joost Yff
Associate Executive Director, ICET

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A number of Washington area colleges and universities prepared and conducted University Field Trips for World Assembly participants. These institutions are Gallaudet College, The George Washington University, the University of Maryland, and American University.

Special services were provided by George Mason University, in coordinating the activities of student interns, and Gallaudet College, in arranging translation for the hearing impaired. This was the first ICET World Assembly during which this type of translation was made available.

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Frank H. Klassen
Executive Director

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Preface

Readers of the annual ICET World Assembly proceedings will find this volume somewhat different than its predecessors. The 30th Anniversary World Assembly was also different than its predecessors in that, in addition to the many plenary sessions (as usual), there were fully one hundred additional sessions, occurring concurrently ten at a time. This additional complexity in program structure required a modification in the format of this year's World Assembly proceedings document.

The volume is organized according to World Assembly themes. Under each theme, there appear selected major addresses given during plenary sessions. Also appearing are abstracts of the concurrent sessions related to the theme. The compilation of abstracts under each theme is preceded by a special summary commissioned by ICET after the World Assembly was over.

In addition to the five thematic sections, the volume opens with messages from ICET President Paul Masoner, and ICET Board of Trustees Chairman W. Clement Stone. AACTE President Anne Flowers' keynote address serves as the introduction to the volume. As a final piece, ICET President Paul Masoner's address provides an appropriate conclusion for this 1983 World Assembly proceedings.

Joost Yff, Editor

A Note About The Abstracts

Abstracts within each thematic section of this volume are ordered alphabetically by authors' surnames. The abstracts were prepared by the authors as part of their submission to ICET for consideration in planning the World Assembly. The abstracts were edited by ICET staff.

Those concurrent session papers that were selected for addition to the Educational Resources Information Center (ERIC) include an ERIC system document number, which is preceded by "ED" or "SP." Papers in the ERIC system are accessible in microfiche collections around the world. Persons interested in obtaining papers that are not in ERIC are encouraged to contact the authors.

A Message from the President

Thirty Years of Service to the Teaching Profession

Thirty years ago, a small group of educators attending the annual meeting of the World Confederation of Organizations of the Teaching Profession (WCOTP), met in Oxford, England to discuss a proposed international effort to improve the quality of teaching throughout the world. It was their considered judgment that this goal could be best accomplished by the development of a new organization, worldwide in its scope, with membership drawn from leaders in the field of teacher education, with national and regional associations of teacher educators, from ministries and departments of education, from universities and colleges, and from lay persons concerned with the improvement of education. Thus, this dedicated band of educators brought into being the International Council on Education for Teaching.

In the thirty years of its existence, ICET has grown to the worldwide scope and stature envisioned by its founders and has indeed become the global voice for teacher education. It has become a symbol of collaboration involving government, business, and education in the task of improving the quality of teaching and the enhancement of educational opportunity for youth and adults everywhere.

Headquartered in Washington, in the United States of America, the organization is governed by a Board of Directors, representing eighteen countries, and an international Board of Trustees. It conducts regional and international conferences, educational development projects in many parts of the world, internship programs for educational leaders, training programs for government and business, and cooperative projects with other international organizations that span continents. ICET represents a network of colleges and universities focusing their endeavors on improving the quality of teaching.

All of us who have the honor to be associated with this great organization salute the founders and all those who have contributed so effectively during the formative years. We pledge ourselves to even greater levels of achievement in the years ahead.

Paul H. Masoner, President, ICET

A Message from the Chairman, Board of Trustees

It Can't Be Done -- But We Can Do It![*]

Millions of people in every walk of life have never tried to achieve high goals that were achievable or solve problems that were solvable. Why? They were told or believed "It can't be done." And they never learned or applied the essence of the art of motivation with a positive mental attitude (PMA) that could have helped them achieve any goal that didn't violate universal laws, the laws of God, and the rights of their fellowmen.

They could have achieved the highest goals and solved the most difficult problems:

1. If they had motivated themselves to Recognize, Relate, Assimilate, and Apply principles from what they read, heard, saw, thought, and experienced, especially from other disciplines, rather than receiving a passing grade or a degree in our educational institutions for only memorizing principles, formulas, and facts.

2. If they had learned, step by step, to apply the powers of suggestion and self-suggestion so as to motivate themselves and others at will. (Through self-suggestion, one can deliberately direct one's thoughts, control one's emotions, and ordain one's own destiny.)

3. If they had set high desirable goals, written them down, engaged in concentrated study, thinking, and planning time for a half hour or more daily on their goals, and listed ideas that occur to them which could help achieve their goals. (The subconscious will come up with the answers through repetition, repetition, repetition. Inventors and high achievers know this.)

4. If they had known teachers who brought romance to the subject being taught in a way that would whet the appetite of students, stimulate them to want to gain knowledge and learn universal principles, even though the subject might be ancient history.

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[*] This message was given at the 1983 World Assembly. It appeared also in SUCCESS magazine, September, 1983, pp. 6-8.

5. If they had recognized that you don't always get in life what you expect unless you inspect. This universal principle applies to you personally and to everyone else. I have trained thousands of men and women individually and in groups to become outstandingly successful in sales and to continuously earn large incomes in both boom and depression by motivating them to motivate themselves to habitually apply all the above principles.

Throughout the history of education, we have made a fallacious assumption: the assumption that knowledge is power. Knowledge is not power; it is potential power. A person may know what to do, even how to do it, and yet may not take action because he doesn't feel like it. He may not have developed the habit to motivate himself at will to do the right thing at the right time because it is the right thing to do.

The essence of the art of motivation must be learned and can be taught by professors or teachers in our educational and religious institutions.

In the May 4, 1983 issue of the Chronicle of Higher Education, I read the report of the National Commission on Excellence in Education, headlined, "Our Nation Is At Risk." It shows that we can anticipate truly wonderful results in the future from our educational institutions. Political leaders, and other Government officials, educators, and the public are inspirationally dissatisfied--and they are taking action.

I'd like to share with you a few excerpts from the report: "If an unfriendly foreign power had attempted to impose on America the mediocre educational performance that exists today, we might well have viewed it as an act of war. As it stands, we have allowed this to happen to ourselves.

> "They (our nation's schools) are routinely called on to provide solutions to personal, social, and political problems that the home and other institutions either will not or cannot resolve.
>
> "The search for solutions to our educational problems must also include a commitment to lifelong learning.
>
> "We must demand the best effort and performance from all students, whether they are gifted or less able, affluent or disadvantaged, whether destined for college, the farm, or industry."

The experience of the W. Clement and Jessie V. Stone Foundation and my own teaching support those ideas. I found a "Magic Ingredient" that is very evident in the concluding sentences of the report:

> "It is by our willingness to take up the challenge, and our resolve to see it through, that America's place in the world will be either secured or forfeited. Americans have succeeded before and . . . so we shall again."

I invite and urge the world's leading educators, gathered here today on the 30th Anniversary of ICET, to take up the same challenge for a global reform in education.

It can't be done . . . but we will do it!

W. Clement Stone, Chairman
Board of Trustees, ICET

INTRODUCTION

Teacher Education for the Twenty-first Century

Anne Flowers, President
American Association of Colleges for Teacher Education

The twenty-first century is less than two decades away: the teachers we prepare today will be the educational leaders in 2000. The children born today will be graduating from secondary school in 2000.

Most people are acquainted with Rip van Winkle, a legendary American figure who fell asleep one day and awoke 20 years later in a land vastly altered during his slumber. If, like Rip van Winkle, we were to take an imaginary leap into the future--just 17 years to 2000--what would we discover upon awakening?

What will have happened to the machines that answer the phones, wash the clothes, regulate heart beats, instruct our children, and solve the most sophisticated mathematical problems? Will we travel in vehicles that move at supersonic speed and transport us to outer space and back in a matter of days? How will we function in a world where robots replace individual people, and human organs and limbs are replaced by manufactured, mechanical parts? Will the global problems of poverty, hunger, disease, and illiteracy be resolved? Will age, race, and sex no longer be barriers to achievement and advancement? How will our educational institutions have changed? Who will be the teachers, and what will they teach? (In many countries, 75 percent of teachers in classrooms today will be teaching in the twenty-first century).

As educators, we have a choice about the future. We can--like Rip van Winkle--take a 17-year nap until the future happens to us. Or, we can decide that future through a steadfast pursuit of excellence and compassion. On this, the thirtieth anniversary of global cooperation in teacher education, let us begin that pursuit.

Two decades ago this year, I received my doctorate and went forth to save the world only to find that the world was not ready to be saved by me. What has happened during those two decades? Those were the days before video games, but not before television. Those were also the days when schools were being implored to meet the scientific and technological challenges of the emerging space age. In many places, we saw a shortage of teachers turn into a surplus, a walk in space for which schools were given no credit, a plea for access to educational opportunity by minorities and females, and an appeal for mass education by nations freed from colonial dependence. We also saw an increased reliance on higher education for national development.

INTRODUCTION

I am not nostalgic, nor do I wish to return to those decades. However, in remembering our accomplishments and in viewing the present, we may find encouragement and strength for the days to come. We may find in some of our immediate disappointments and challenges the galvanizing element that will unite us in shaping the future.

During no time in our history have the public schools and teacher education institutions received more criticism or been the subject of so many study groups. Economic and political circumstances have placed teacher educators under stress and constraints greater than ever before. The crisis in public education and teacher education is, to some extent, the result of the success in accomplishing the diversified tasks assigned to the schools.

The dilemma for educators is one of remembering the successes while attempting to change the schools to meet new demands being placed on our citizens. Dealing constructively with the criticism that abounds, while making intelligent choices concerning our schools and teacher education, may be our greatest challenge.

The educational system of the United States, with all its shortcomings, has served this country well. No other country's schools have so large and varied a population attending school, being graduated from high school, and matriculating to postsecondary institutions. In 1890, only one person of 15 in the 14- to 17-year-old group was enrolled in school. Today, 83 percent of our 18-year olds are in school, and 80 percent of our youths are graduated from high school with 65 to 75 percent continuing into postsecondary education.

U.S. schools have been opened to all young people without regard to race, sex, or social class. In the 1970s, the proportion of high school graduates among the black 18- to 24-year-old population increased from 60 to 70 percent. For the first time, total enrollments for females in higher education grew faster than those for males. The schools helped assimilate 12 million immigrants, the largest wave of immigrants of any decade in American history. Also, the schools mainstreamed increasing numbers of handicapped children into regular classrooms.

During the last decade, the schools were successful in providing some remedies for bilingual children, in ending sex-role stereotyping in materials and textbooks, in increasing the attention to career and vocational education, in dealing with the environmental education movement, and in teaching the skills of active citizenship. Scholastic Aptitude Test scores as well as scores in the American College Testing Program, the Preliminary Scholastic Aptitude Test, and the Graduate Record Examination have held up well under the infusions of such large, diverse numbers and given the many distractions from the traditional curriculum. U.S. schools have produced the specialists who have received awards for outstanding achievement or contributed greatly to every major advancement in the world.

On that record, the great challenge of conveying new scientific, technological, and humanistic literacy during the coming decade can be met by the schools. It is gratifying to know that last fall, a Gallup poll reported that 84 percent of those polled saw the best guarantee of a strong nation was a strong educational system. We have reason to be pleased about our accomplishments as teacher educators in responding to the country's request for schools for the public.

Each of the more than 40 countries represented at this Assembly can point with equal pride to monumental achievements of their educational systems. The Assembly is testimony to the emergence of international cooperation as a significant factor in the pursuit of excellence. It is testimony also that all humans share common needs and cannot pursue their destinies in isolation. The rapid pace of change must be harnessed so that aspirations and achievements of future generations are assured.

We cannot rest on our laurels. We know that we must examine our past and present practices critically if we are to meet the demands of the twenty-first century, and to be partners in shaping our destinies. We must wrestle with criticism, with problems, and with an increasing amount of data about teaching and learning. Most importantly, we must transcend the limitations of past and present to ensure that preparation for the profession of teaching is of the highest quality, as recommended most recently by the National Commission on Excellence in Education.

The condition confronting the professions, the schools, and societies on this "Spaceship Earth" call for changes that reach beyond the capacities of current systems. It will be necessary to find new, bold answers to perennial questions. The task of this World Assembly is to design an appropriate, responsive, efficient, accountable learning environment for the year 2000. We must search together for answers to the following questions:

> How will schools, colleges, and universities reflect the twin goals of equal opportunity and excellence?
>
> How adequate are the educational institutions at present to carry out the reforms in teaching and learning required for the twenty-first century?
>
> What new social norms and values will emerge that the schools will be called upon to exemplify/reflect/create?
>
> Will new research from developmental psychology, brain research, and nutrition dictate changes in the sequencing of knowledge?
>
> What incentives will be made available to attract outstanding students to the teaching profession?

> What technological innovations will facilitate learning and teaching and cope with worldwide efforts to democratize education?
>
> Will the universities around the world become the locus for the preparation of all types of teachers and educational specialists?
>
> Can the liberal arts, sciences, and humanities, as taught in the university, keep pace with the demands of teachers for the twenty-first century?
>
> Will the resources be found to forge and sustain the "learning society?"
>
> What responsibilities shall educators and the educational environment assume for the lifelong learning of the society?
>
> Will the interdependence of peoples and nations lead to cooperative endeavors to enhance learning around the globe?
>
> What new connections between private and public sectors of society will be created to ensure education of high quality for this and future generations?

These questions and many others must be considered in the days ahead. To search for new paradigms for teacher education, I propose that we look at the educational needs of learners in the twenty-first century and begin to build a responsive system capable of meeting those needs. This look into the future must not abandon recent efforts to describe the knowledge base or the conditions of practice that confront today's teachers, nor the achievement of excellence in the school of 1980. Rather, it is proposed that by looking forward, we can be more creative in our responses.

The twenty-first century is near, and we must plan now to shape that future. Let us, as teacher educators, be bold enough, brave enough, knowledgeable enough, and committed enough to join those who set the agenda for the future. We must not wait, as many will, for the future to happen.

SECTION I

The Redesign of Teacher Education

The Redesign of Teacher Education
or
Why We Must Be Leaders

Anne Flowers, President
American Association of Colleges for Teacher Education

In the audience attending this ICET World Assembly are a distinguished array of educators from 40 countries along with prominent teacher educators and directors of international education programs from U.S. colleges and universities. It is a diverse group with an important common focus: a commitment to excellence in education that serves the needs of the world's children who are coming of age in a challenging international era. The challenges present opportunities as well as problems for us as educators and they will require us to exert stronger leadership in the coming years.

How are the challenges shaping up in the United States? The following describes for our visitors from overseas the movement and ferment in American education and examines how teacher education is responding.

Excellence vs. Equity in U.S. Education

The 1983 report by the National Commission on Excellence in Education, A Nation at Risk: The Imperative for Educational Reform, flatly called the state of American schools "deplorable." The commission's declaration and a dozen similar reports released during the past six months have shaken the education profession and roused the American public to ask fundamental questions about the goals and purposes of American schools.

At the heart of several of these reports is a belief that American business and industry have lost their competitive edge in the international marketplace because of poor quality human resources. Blaming their loss on the nation's secondary schools, critics have called for dramatic change and improvement of schooling through introduction of more rigorous and demanding curricula. Local, state, and federal government officials along with educators have joined in this chorus for change.

A curious theme in many of these reports is the importance of what is called "instrumentalism," the shaping of education as a means to further social and economic policy rather than as an end in and of itself. Surely the reporters realize that instrumentalism contradicts the history of American education. Most people are aware that the American school is, as Robert Howsam wrote, an "inclusive institution," that is, one that provides education for all of its citizens. For 150 years, the American public school has operated on the Jeffersonian tenet that an enlightened, educated, and free society will arrive naturally at the best available solutions to public problems, and therefore it is important to educate all citizens. It is in comprehensive American high schools that quality education is provided for the majority of the nation's young people. Nearly three quarters of American 17-year-olds attend public high school.

The inclusive character of American education continues to be tested. From the child labor laws of the late 19th century to the Education for all Handicapped Children Act in 1975 and other civil rights legislation providing opportunities for disadvantaged children, significant progress has been made toward including all children in school. In the past decade, 13 million persons from Latin America and Asia were assimilated into the American school population.

The implied goal of instrumentalism is to hone America's marketable skills--job skills, technical skills, competitive skills, and so forth. The mastery of such skills requires different curricular arrangements and an overall educational focus that diverges from the past. Since nothing can be added to school curricula without paying more for longer school days or years, and since schools continue to be bound by financial constraints, it stands to reason that trade-offs will have to be made somewhere. In short, something must give so that the other may gain.

In accordance with mandates for equality and while striving to achieve true equity in the educational system, educators have had to make trade-offs in overall excellence. Efforts to keep up with an explosion of knowledge in all fields and with ongoing changes in society have had less priority than efforts to achieve equity. Educators should not apologize for this order. Rather, we assert that our obligation to ensure an excellent education system cannot be fulfilled exclusive of the goal of equity.

An equitable education system is needed to meet the current challenges: the challenge to educate Asian, Hispanic, and other children with limited English proficiency will increase, and the challenge to provide access-- and excellence--to handicapped and disadvantaged children will continue. Assuring every child an excellent education requires money and effort; yet we believe each deserves the same opportunity to receive high quality education as any other child in American society.

Thus, many educators are profoundly disturbed by the efforts to turn aside the equity gains of the last 25 years. Excellence, we contend, should not be synonymous with exclusion. One cannot have excellence without equity; at the same time, equity will not be achieved without excellence. Our nation cannot return to "exclusive schools."

In resolving the excellence-equity issue, teacher educators and teachers will be in the forefront of public policy discussions and debates. We must help prepare appropriate solutions.

Pressures on Teacher Education

Within many reports about our schools is a heartening theme: recognition that teachers make a difference and are the heart of education. That makes our job as teacher educators that much more important--and that much more in the spotlight.

For 50 years, teacher education in the United States has been an all-university function. The move from normal schools to collegiate settings represented a major reform in the preparation of teachers, but the professional quadrivium of general studies (specialized or advanced study) in disciplined preprofessional and professional education endured the shift and persists today. The most dramatic change since the move from normal school to university has been that the university and the state have assumed ever-greater responsibility for teacher preparation through resource allocation and certification, respectively. Vested interest groups also have added to curricular requirements.

Despite this shared responsibility for preparing teachers and the influence of interest groups, much of the criticism of education is aimed sharply at schools of education. These have become a convenient scapegoat for education's problems. Yet teacher education as a national priority has been relegated by the commissions and task forces no more than a few brief comments; it is characterized as a problem area instead of a locus for innovation and overall improvement of education.

As president of the American Association of Colleges for Teacher Education, I must say that we recognize the inadequacy of some teacher education programs. Yet, I must stress that the resounding response from my colleagues in the past half-dozen years has been significant efforts of change and innovation to make our curricula and programs more rigorous; to tighten our admissions requirements while offering remedial programs for disadvantaged candidates; and to use accurate, effective measurements to assure quality and excellence in our graduates. We are working on a better transition between college preparation and beginning practice. We have made progress despite sacrifices required because of budgetary allocations in institutions whose available resources are dictated by credit-hour production.

We have done these things with the goal of producing teachers who will ensure that this nation's citizens reach their highest potential intellectually, socially, morally, economically, and physically. We continue to assert that the role of teacher educators is essential in this process.

Teacher Education's Dilemma

American education is reeling with the challenge of shaping schools and preparing teachers because our society has neglected to articulate the purposes and goals that direct education. Ours is a nation of special interests. Yet, we accept the theme of "No One Model American," and we have placed cultural pluralism high on our list of goals for this society. Preparing teachers for a society that values diversity but sees competing interests at odds with each other presents educators with a problem of direction. Must we listen to the chorus of competing voices, or dare we build a new agenda?

Educator Harold Howe indicated recently that the most important priority on the American agenda now is to reach a common agreement on the goals and purposes of our society. He asserted that while we put a premium on cultural diversity and pluralism, we still need to emphasize shared values and beliefs, or what Gunnar Myrdal referred to as the "American creed." Myrdal described an amalgam of beliefs about the essential dignity of humanity and its perfectability, the principles of consent of the governed and majority rule, respect for governance by law in all phases of life, and careful observance of these laws and principles.

Where in this creed do we find today's emphasis on educational excellence to produce better competitors in global markets? Does that emphasis represent a departure from the creed or an addition to it? Are American business and industry special interest groups, and are their interests so crucial to our national well-being that they must be woven into a national purpose of education? Answers to these questions will shape American education in this and the 21st century.

Teacher Education's Responsibilities

As teacher educators our first responsibility in the effort to articulate education's purposes and goals is to participate fully. We cannot allow the whims and caprices of special interest groups or the expediencies of time and place to dictate the policies of education.

Beyond exerting leadership, we have a responsibility to promote the quality education we already know will contribute to producing good teachers. We know that all teacher candidates must be broadly educated in the liberal arts and thoroughly grounded in the subjects they are to teach. Certainly a teacher cannot teach what he or she does not know.

Of equal importance are the abilities of the teacher to: teach all kinds of children regardless of learning style, disability, handicap, or background; make the subjects come alive; sequence content and develop curricula; construct tests and interpret standardized scores; effectively manage classes of 30 unique individuals; diagnose various handicapping conditions and develop appropriate individualized programs; understand the laws that shape the rights of both learner and teacher; and use a repertoire of instructional strategies in various situations and with various children.

To be able to do all those things, teachers need a strong foundation of liberal arts which exposes them to the various academic disciplines making up a school curriculum. They need social and behavioral sciences to understand the application to the practice of education. They also need comprehensive study of a teaching field, which will usually be defined by college and university major requirements. In the latter they must learn skills for diagnosing and interpreting students' learning needs; they must learn to plan, prescribe, conduct, and evaluate instruction, to manage student conduct, to demonstrate good human relations skills, to use conferral and referral skills, and to incorporate knowledge and skills related to population-specific characteristics, institutional citizenship, and professional citizenship.

We also believe that clinical and practical experiences that bridge theory and practice must be integrated into such programs, and that professional preparation must include specific pedagogical knowledge in skills for teaching specific subjects at specific age or grade levels.

We believe it is our responsibility as teacher educators to build such programs, to assert our commitment to excellence and equity, and to create a climate for change. However, our job will not be easy to do while the loudest voices in the land are calling for less involvement of schools of education and more teacher preparation in arts and sciences and fine arts. Those voices are the same ones who call for emergency teaching certificates and provisional waivers of certification requirements. They impose a sometimes overwhelming burden on our confidence and sense of purpose.

Teacher educators need more supportive university climates, more favorable public attitudes, more state resources, and better support from teacher organizations. We cannot expect to achieve our goals in a vacuum. Yet, we also cannot expect this support to be handed to us. Exerting leadership means taking the risk of rejection and misunderstanding; it means speaking up for our ideas and ideals which we alone are qualified to represent. Certainly we need friends, but we cannot expect our friends to tell our story.

I do not want to end on a dire note. There is as much opportunity present in these times as there is threat or risk. Perhaps our profession needed to be roused to awaken a sense of our strengths and capabilities. I look forward to the next 20 years and beyond, when we can test our mettle and grow with the challenges. A new age is coming. Let's join it.

Practitioner Efforts in the Redesign of Teacher Education

Willard H. McGuire, President
National Education Association

For decades, the National Education Association (NEA) has been trying to convince the nation's leaders that public education in the United States was in serious trouble. We have warned that the schools were grossly underfunded, that teachers were woefully underpaid; we have warned that teacher preparation programs in America's colleges and universities were inadequate, and that teacher certification standards were abysmally low. Most of our warnings fell on deaf ears.

We hope the situation may be changing. For the last two months, the subject of education has been on the front pages of the nation's newspapers almost every day. Not since the Soviet Union launched Sputnik 25 years ago has the American public paid so much attention to one of the nation's most important resources--our schools.

If the clamor over education that followed the launching of Sputnik is any measure of what we can expect in the next few years, changes in the public's perception of the schools may occur. In the late 1950s and early 1960s, the federal government took the lead and altered the ways math and science were taught in the schools. Funds were made available to train teachers; science labs were built; textbooks were updated. For a few years, public education in America received the attention it needed so that it could do the job for which it was established.

Then public indifference set in again. The public schools were allowed to slip into the backwater of American society.

For those who may not be familiar with the report of the National Commission on Excellence in Education, which has sparked the current national debate, I shall explain what the report is and what it can contribute to the improvement of the schools. I recommend that you examine the full report.

Nearly two years ago, Dr. Terrell Bell, U.S. Secretary of Education, appointed a distinguished panel of educators to survey the condition of the nation's schools. After 18 months of work, the commission issued its report, A Nation At Risk. The report pulled no punches: "If an unfriendly foreign power had attempted to impose on America the mediocre educational performance that exists today, we might well have viewed it as an act of war." The report also noted that "The educational foundations of our society are presently being eroded by a rising tide of mediocrity that threatens our very future as a Nation and a people."

Those are strong indictments against a public school system that has been viewed historically as one of the world's best. Are schools as much of an educational wasteland as the report states? One would have to agree that some are, but the vast majority are not. However, the recommendations contained in the report are, for the most part, sound and should be implemented as soon as possible.

As a matter of fact, many of the recommendations contained in the report are the same recommendations that the NEA has long been proposing. Higher academic standards must be enforced in the schools. Colleges and universities must raise their entrance requirements so that high school students will be compelled to take the tough courses in order to go on to college. Discipline must be enforced in the schools. Teachers must be relieved of non-teaching duties so that more time can be spent on course material, rather than on administrative bookkeeping. Teachers must be paid wages competitive with jobs in the marketplace requiring the same amount of education. Also, persons preparing to teach should be required to meet high educational standards, to demonstrate an aptitude for teaching, and to demonstrate competence in an academic discipline. These are all recommendations that the NEA has supported in the past and will continue to support, along with a number of other recommendations in the report.

Long before the Commission on Excellence was announced, NEA had initiated a far-reaching plan to significantly improve the quality of American public education. What is missing from the public debate about the schools is an understanding that teachers are fighting for better schools, that they have the background and knowledge to make them better, and that they have a deep commitment to do so. NEA members want tougher, more rigorous standards for their profession. Already they have started to make those standards a reality.

To ensure that tougher standards are demanded of those who are preparing to enter the teaching profession, NEA has developed a bold, far-reaching action plan that will significantly improve the quality of teacher education in America. Entitled "Excellence in Our Schools: Teacher Education," the plan was prepared by practicing teachers to assure the appropriate preparation of their future colleagues. In the plan, NEA calls for:

o rigorous admission standards to college of education programs based on firm evidence of potential success as a classroom teacher;

o college of education programs based on that which practitioners say is necessary to be known and done for beginning effective practice;

o ample opportunities for the education student to apply knowledge and skills to the "real world" of teaching;

- o credentials for teaching based not on a single criterion, but on multiple measures of the graduate's ability to practice effectively;

- o professional authority to approve teacher education programs and certify teachers.

To ensure a stronger link between teacher preparation and the practice of teaching, NEA's action plan calls for application of stringent program standards. Thirty-five standards, organized around five themes, define a quality teacher education program. Those who will apply the standards to preparatory programs are provided "criteria for compliance" and "evidence questions" for each standard.

The questions relate directly to the goal of providing in-depth understanding of the broad scope of education and its problems--from anchor posts in the liberal arts curriculum to the practical application of knowledge in the classroom, to meeting the instructional needs of students from various backgrounds. The crux of such college-level teacher preparation programs lies in the realization that the qualification for being an educator is something that cannot be quantified, nor neatly summed up in numbers or grades. It is a process requiring a deep insight and sensitivity to the students, the environment, and the realities of day-to-day living.

"Evidence questions" designed to elicit specific information about whether the standards are met by the colleges have been prepared. Here are a few of them.

- o Do the planned learnings include study in arts/humanities, mathematics/science/technology, social and behavioral sciences, and physical and health education?

- o Does the college of education receive clear, precise evidence of the level of proficiency in the basic skills of those who apply?

- o Is there evidence that the general curriculum demonstrates teaching and learning opportunities directed at higher cognitive thinking?

- o Does the program provide opportunities for education students to design instructional activities for pupils of varying racial, cultural, linguistic, religious, and socioeconomic backgrounds and to implement them in the pupils' own school environment?

It is through the application of questions such as these and scores of others that our states will be able to determine whether or not colleges are providing programs of sufficient quality to merit approval and certification of their graduates.

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Another important characteristic of NEA's proposal is a careful delineation of the knowledge and skills that holders of a certificate to teach should possess upon graduation. Three examples from a lengthy list are:

- o thorough knowledge of one or more subjects, and how to translate the knowledge of that subject into sequenced, age-appropriate instructional activity;

- o knowledge of intellectual growth and development, and how to use a variety of techniques that foster inductive and deductive reasoning;

- o knowledge of instructional design and technology, and how to incorporate these into learning.

Teachers have too often had to develop for themselves the skills and understanding called for in this proposal. That is, they have had to provide their own professional education after beginning to teach.

Because of simplistic mandates from state legislatures, underfunding, and the low status of professional preparation programs in higher education, colleges of education need the support that this proposal provides. Teachers stand ready to work with the training arm of the profession to improve the quality of professional education. It will require the continuation of the very warm and welcome relationship the NEA has established with the American Association of Colleges for Teacher Education over the years. It is through our joint efforts to implement this plan that we will better define our profession and establish what the public has a right to expect from those who are certified to teach.

Ten pilot states already are engaged in active attempts to implement our plan. Progress varies because each state faces different problems and different opportunities, but we are most gratified with the progress that is being made.

Experience has made it clear that the profession must play a major role in reforming teaching education. No one else will establish and enforce the kind of demanding standards our students and their teachers need and deserve. Teachers and teacher educators have taken the initiative, and we are bringing our unique knowledge and experience to bear on improving the quality of education.

NEA's plan of action is not a "quick fix." It calls for basic structural and substantive changes in the way teachers are prepared and certified to teach. Success will require sustained effort as well as cooperation between the teaching arm in the schools of education and the practicing arm of the teaching profession.

Redesign of Teacher Education: Summary of Concurrent Session Abstracts

Russell Leskiw, Ministry of Education
Victoria, British Columbia, Canada

The redesign of teacher education is being influenced by a multiplicity of concurrent developments at regional, national, and international levels in political, cultural, economic, academic, and professional contexts. The complexity and magnitude of the tasks posed an enormous challenge to presenters and participants during the week-long dialogue.

A universal blueprint for teacher education was not attempted and none emerges from an overview of the various presentations summarized in this section. The abstracts that follow suggest strategies for initiating and implementing program changes, describe efforts in reform of specific phases of teacher education, and discuss needs and priorities in terms of national imperatives or cultural perspectives, occasionally in a comparative sense. Support emerges for the view that a teacher's functions should be idealized first, with subsequent attention to the principles undergirding teacher education, and then appropriate programs should be developed. Departure from the traditional program components, i.e., academic courses, professional studies, periods of practica, may be necessary or at least a considerable change in focus may be required.

Processes of change. Strategies and processes that might be used in undertaking the redesign of teacher education can be addressed from the perspectives of societal demands (Leskiw); components of strategies in use at universities and colleges (Lamberti, Smith and Daly); collaborative efforts (McClure, McQueen, and Robinson); and research (Dickson and Wiersma, Feldens, Hwang, Landers and Martin, Leskiw and Louw).

Comparative study. By examining national or cultural attributes comparatively, developers of teacher education programs gain a greater appreciation of the world context in which teachers and teacher educators function (Barnett, Harf, Mars, Isom and Castell, McQueen, and Valles).

External motivation. Initiatives for redesigning teacher education come from sources external to teacher education institutions and from developments outside teacher education, e.g., the impact of court decisions and legislative mandates (Jalbert); state program approval (Roth); national accreditation (Denemark and Scannell); competency testing (Sandefur); university mandates (Mulhern); and educational technology (Clayton).

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Inservice education. Both preservice and inservice preparation are part of a continuum rather than separate, unrelated programs. Redesign must focus on both phases, with greater concentration on conceptualizing and developing the inservice phase, e.g., trends and development (Dunkley); need for inservice in Nigeria (Ogunranti); integration with preservice programs in Japan (Kamidera); a model for using inservice trainers in preservice teacher education (Binko and Neubert-Loudermilk); inservice to complement preservice programs (Russell-Gebbett); inservice to join theory and reality (Smith); and use of a resource center for an international dimension in teacher education (Barnett).

Improvements through a focus on specific program features. Teacher education programs in total may be improved by concentrating redesign efforts in critical or neglected program sectors, e.g., nature of student teaching experiences (Ondo); refinement of lesson structure pertaining to various school subjects (Louw); identification of creative teaching (Smith); providing opportunities for the teacher with a handicap (Landers and Martin); and the role, type, and sequencing of clinical experiences (Dieterle).

Total program revision. When changes in the basic assumptions underlying teacher education are made, all phases of the program may be influenced (Leskiw), or require modification (Mulhern).

A Model for Using Practicing Teachers to be Trainers in Preservice and Inservice Education (Binko, James B. and Neubert-Loudermilk, Gloria, Towson State University, Maryland)

This overview of the interrelationships between preservice and inservice teacher training offers a model for continuity between preservice and inservice education, which utilizes university faculty, practicing teachers, graduate students, and undergraduate students. The model is used in the Maryland Writing Project, housed in the College of Education and Instructional Technology at Towson State University. This project is one of 102 international sites of the National Writing Project. All sites train outstanding practicing teachers of grades kindergarten through 12 each summer at invitational five-week institutes. The teachers become more effective teachers of writing and trainers of other teachers during academic-year workshops conducted by National Writing Project sites. The Maryland Writing Project has expanded this model of instruction to use these trained practicing teachers, called teacher-consultants: (1) to collaborate with university faculty and give demonstrations on the teaching of writing in preservice college methodology courses, and (2) to serve as cooperating teachers for the field-based experiences of preservice teachers. In addition, teacher-consultants help supervise the writing clinic experiences of students enrolled in the Masters in Professional Writing program. The Maryland Writing Project plans to develop a research institute, which will involve university faculty and teacher-consultants in collaborative research conducted within the teacher-consultants' classrooms. Implications for using this model of instruction in other disciplines are outlined.

External Change Strategies: National Accreditation (Denemark, George, National Council for the Accreditation of Teacher Education, Washington, D.C., and Scannell, Dale, University of Kansas, Lawrence)

Although national accreditation in the United States is voluntary, more than 500 institutions participate in reviews by the National Council for the Accreditation of Teacher Education (NCATE). Accreditation serves the dual purposes of stimulating institutions to seek improvements and of providing assurance to the public that programs meet minimal standards of acceptability. The accreditation process includes the adoption of standards, processes for collecting information about institutions, and decision making by the Council. Institutions prepare a self-study report describing the institution and its programs in terms of NCATE standards. A team of qualified professionals verifies the report and judges whether standards are met. An annual publication of the Council includes a list of accredited programs. A revision of the current system is being studied at present. The following principles have been adopted:

1. The accreditation decision should be made for the entire professional education unit.

2. Five unit-based standards will replace the current families of standards.

3. Small teams of highly trained and skilled evaluators will be selected from a prestigious board of evaluators.

4. Articulation between state approval and national accreditation will be improved.

5. Continuing accreditation will replace reaccreditation and will be based on annual monitoring of information provided by institutions.

6. The annual report of accreditation status will include data describing institutional characteristics related to the character and support of professional education programs.

The Competency Assessment of Teachers Using High and Low Inference Measurement Procedures--A Review of Past Research and Promising Present Practices (Dickson, George.E., and Wiersma, William, The University of Toledo, Ohio) ED 233 014

A research team at the University of Toledo has engaged in teacher competence research and evaluation over five years. Their efforts concern the use of high- and low-inference evaluation instruments in obtaining information about the teaching performance of student teachers. How competent are advanced teacher education students in terms of the repertoire of teacher competencies they possess? The performance of teacher education students has been assessed and scores from the instruments used have resulted in the development of performance means as well as individual profiles on the competencies measured. The researchers have developed a specific procedure that can be organized in any teacher education institution to evaluate and measure student teacher competency. This plan is presented and the various procedures and instruments explained.

Designing and Implementing Clinical Experiences in Teacher Education Programs (Dieterle, Louise E., Northern Illinois University, DeKalb)

In this overview of the role of clinical experiences in teacher education programs, such experiences are identified as directed observation, supervised participation, internship, and student teaching. Clinical experiences enable individuals preparing for certification to acquire practical experience, complementary with theoretical knowledge, before entering

into the full responsibilities of the profession. The types and sequencing of clinical experiences, methods of assessment, and procedures for documentation of experiences are discussed. Illustrative materials are included.

Redesign of Teacher Education--Inservice Priorities (Dunkley, M. E., Macquarie University, New South Wales)

Before attempting to list priorities in INSET (Inservice Education and Training), it is desirable to consider recent trends and developments in inservice education, particularly those relating to school-focused INSET. These developments are considered within an analytic framework that can be applied to inservice education. A list of priorities emerge from these developments.

Perceived Problems of Teachers: The Brazilian Case (Feldens, Maria Das Gracas Furtado, Federal University of Rio Grande do Sul-Brazil)

This paper discusses an investigation that identified the nature of perceived problems of elementary school teachers and considered the frequency at which such problems occurred. Comparisons were made among teachers' perceptions of problems and the degree to which the problems bothered them. Teachers were grouped according to the variables of school location, number of years teaching experience, and grade level taught. Two separate samples were used to obtain study data, which included day-to-day problems confronted by teachers, frequency with which problems occurred, and degree to which problems bothered teachers. Major results identified six factors common to teachers' problems: student success and evaluation; student relationship and adjustment; student responsibility and teacher preparation; student background; resources; and teacher influence. Problems that frequently bothered teachers had the following factors: student adjustment; teacher performance and self-concept; relationship and student adaptation; teacher influence and student autonomy; resources and support; and student background. Comparison among teachers indicated that: (1) urban school teachers and rural school teachers have different problems; (2) teachers with more than five years of experience perceive problems more frequently and are more bothered by them; and (3) teachers working at the fifth through eighth grades more frequently perceive problems and are more bothered by them. Study results permit the identification of some important variables to be considered in the redesign of teacher education.

Global Dimensions of Social Studies Courses (Harf, James E., The Ohio State University, Columbus)

A set of self-contained lessons that can help high school teachers bring global perspectives into discussions of events and concepts in the social studies curriculum is the focus of this workshop report. The lessons respond to a need for creative and practical supplementary materials on world affairs for use at the senior high school level. They are designed to supplement courses in American history, American government, economics, world geography, and world history. Instructional strategies used include simulations, lecture and discussion lessons, readings, and concept-learning exercises. Each lesson unit is highly correlated with a standard curriculum in the targeted course.

The Selection of Teacher Training Candidates (Hwang, Chien-hou, National Taiwan Normal University, Taipei) ED 233 003

Results of a study of secondary school teachers in Taiwan suggest that a high school graduate's interest in teaching when he applies for university admission may not be correlated with performance in teaching afterward. The study covered 331 secondary school teachers who were graduated from National Taiwan Normal University, a teacher training institution. Approximately half of these teachers listed attending a department of this university as their first choice when they took the Joint Entrance Examination for all universities in Taiwan. The other teachers entered Taiwan Normal University only because they were not admitted to the college department they preferred. Results of intergroup comparisons showed that the first choice group did no better than the others in undergraduate academic achievement or in professional knowledge of education, nor did they perform better in classroom teaching, as rated by their principals. Moreover, the two groups of teachers did not differ in their subjective satisfaction with teaching.

Incorporating International Findings about Reading Instruction into a Graduate Reading Course (Isom, Bess A., and Casteel, Carolyn, University of South Alabama, Mobile)

In a comparative study of reading methods, consideration is given to fundamental processes of reading and writing in various cultures and to ways in which these processes develop. The study of reading methods in countries with different cultural customs and language helps students recognize more clearly the important variables in reading development in the United States. Increased knowledge of various reading methods and techniques helps students approach the teaching of reading with greater knowledge of and appreciation for the world as a community. This paper describes the purposes and need for such a course, reviews highlights of the course content, and discusses expected outcomes of the course.

External Change Strategies: Governmental Mandates (Jalbert, Elizabeth L., et al., State University of New York, Oneonta)

In this session, a panel discussed the impact of court decisions and legislative mandates in the preparation of school personnel. Participants heard about ways that federal and state governmental bodies have used mandates and court decisions to direct programs in schools, colleges, and departments of education.

Panel members discussed examples pertaining to:

1. pupils with special needs; that is, the Education for All Handicapped Children Act (Public Law 94-142), passed by the U.S. Congress in 1975, which guaranteed all handicapped children the right to a free, appropriate education;

2. bilingual education programs supported by federal assistance under Title VII of the Elementary and Secondary Education Act, as well as the judicial support for bilingual education;

3. the distribution of federal funds to the states through the Education Consolidation Improvement Act and the ways institutions of higher education have responded to block grants (i.e., micro-computers and child abuse programs);

4. competency testing mandates either through legislation or through action by state boards of education;

5. multicultural and international education mandates through state boards of education and professional organizations.

New Ideas and Problems in Inservice Programs: A Case Study on Teacher Education in Japan (Kamidera, Hisao, Hyogo University of Teacher Education, Japan) ED 232 998

At Hyogo University of Teacher Education, faculty emphasize that inservice training should be regarded as a part of the teacher's lifelong progress. The aims of the graduate school are: (1) to provide specified knowledge; (2) to cultivate the ability to do research in the area specified; and (3) to develop advanced skills. About two-thirds of the students admitted are active elementary and secondary teachers who have taught more than three years. They can take a two-year sabbatical leave for the master's program. The university program has two experimental aspects. One aspect lies in the design of majors and courses. Much consideration has been given to the way in which courses are offered. The other aspect concerns the invention and practice of the new curriculum plan. In accordance with the design of the courses and majors, a unique curriculum has been set up that facilitates academic and practical research in each field. The majors and courses are more exhaustive than before and are unified from an innovative perspective. Details of the curriculum are described.

Innovative Instructional Strategies for Improved Teacher Training (Lamberti, Joseph F., et al., Butler University, Indianapolis, Indiana)

The U. S. National Assessment of Educational Progress (NAEP) focuses attention on the fact that the most flagrant weakness of our schools is our failure to bring about student learning. For too many years we have blamed the students for their inability to achieve academically. The staff of Butler University is looking at the methodology, content, and courses required for teacher licensing and certification, and has concluded that those preparing to become teachers need learning experiences quite different from what they are currently receiving. Toward this end, 12 instructional strategies were developed and are being applied in the teacher education program. Included in the paper are a rationale for improving the teacher training program, a description of the content that should be included for teachers to effectively respond to existing trends, a demonstration of strategies for teacher training, and an analysis of next steps toward implementation and evaluation of the teacher training program.

Preparing the Handicapped Teacher for the Professional Mainstream (Landers, Thomas, and Martin, David S., Gallaudet College, Washington, D. C.) ED 232 997

Much has been discussed about integrating the handicapped learner with nonhandicapped peers, but the prospective teacher with a handicap has received little systematic attention. This paper analyzes an innovative undergraduate teacher training program at Gallaudet College, in which hearing-impaired preprofessionals complete all requirements to become certificated teachers for work with hearing children. Fundamental issues in the involvement of the handicapped teacher with nonhandicapped learners are addressed, including: differential standards for supervision of the handicapped teacher, integrating the handicapped teacher with peer teachers, fostering community acceptance of the teacher with special needs, and observed pupil learning outcomes resulting from work with a handicapped teacher. Discussion covers the following: (1) teacher training program for handicapped preprofessionals; (2) critical stages in teacher training programs for hearing-impaired teachers; (3) important variables in the communication process encountered by hearing-impaired preprofessionals; (4) teacher training programs for preprofessionals who have other handicapping conditions; (5) appropriate helping behavior and dependence-producing behavior by the supervisor of the handicapped teacher in a "mainstream" setting; and (6) needs for recruiting and additional training of handicapped preprofessionals. Attitude research data is presented on the reactions of nonhandicapped children, parents, school administrators, teachers, and handicapped trainees in relation to practicum experiences.

Redesign of Teacher Education: Curriculum and Research Priorities for the Twenty-first Century (Leskiw, Russell J., Ministry of Education, Victoria, B.C., Canada)

Projecting curriculum design and research for the future must be preceded by a description of two conditions: the social and economic developments which are anticipated and the nature and quality of schooling which is expected. The type of response which might then be made within teacher education and the selection of appropriate research designs can be projected with much greater confidence. Six conditions pertaining to the social, political and economic milieu in Canada are presented and reference is drawn to statements about quality of schooling expected. Teacher education developments are traced historically, these leading to the call for a carefully planned preparation for the future. Such a plan focuses on literacy, life long pursuit of learning, scholarship in teaching and teacher preparation, and proof of competency to teach. In conclusion, twelve principles and conditions are discussed pertaining to the use of a research base for decision making.

The Prospect of the Development of Teacher Education in the Republic of China (Liang, Shang-Yung, National Taiwan Normal University, Taipei) ED 233 000

Due to rapid social change, old teacher education statutes in the Republic of China could no longer meet the needs of the social situation in 1979. The government abolished these statutes during 1979 and promulgated "Teacher Education Statutes" that incorporated the training of both elementary and secondary school teachers. The main points of the legislation concern: (1) supervision and operation of normal colleges and universities by the state; (2) training of elementary school teachers at the junior normal school level and of secondary school teachers at the normal school level; (3) sufficient supply of qualified teachers; (4) post-baccalaureate study and college extension programs for graduates holding degrees related to secondary education; (5) major and minor courses of study; (6) course work and teaching practice; and (7) inservice training. Projections of future educational development will make revision of these statutes inevitable. Major points of revision will probably involve: (1) cultivation of qualified elementary and secondary school teachers; (2) salary scales and government scholarships and allowances; (3) culturally oriented study; and (4) systemization of inservice training.

Restructuring Teacher Education for Secondary Schools (Louw, Wynand J., University of Pretoria, Republic of South Africa)

Since 1970, on-going research has focused on: (1) problems related to an accountable research method; (2) input of various teaching-related pedagogic disciplines which had to be interpreted didactically;and (3) analysis of the teaching situation. Results from this research were integrated in a major publication describing the Lesson Structure (LS) in 1975. From 1975 to 1979, research was directed to refining the LS, especially in terms of the nature of various school subjects. The particularization of the LS (the concern of subject didactics) provided teaching models for various school subjects. During this period, the teacher education curriculum was gradually changed. With the proposed introduction in 1983 of a semester study system at the University of Pretoria, the period 1980 to 1982 was devoted to the identification of supporting pedagogical themes to illustrate both structural and functional aspects of the LS. These themes were integrated with topics on the professional training of the secondary school teacher and organized into a two-semester postgraduate course. Initial responses suggest that the restructured teacher training program provides a sound base to approach educational problems of the twenty-first century.

Change Through Collaboration Within the Education Profession (McClure, Robert, National Education Association, Washington, D.C.)

This paper focuses on the joint activities of two national associations that seek to address needed changes in standards for and governance of the teacher education profession. The American Association of Colleges for Teacher Education (AACTE) and the National Education Association (NEA), representing members of the training, research, and practitioner components of the profession, have in progress a pilot project to address such issues as teacher education program standards; national professional accreditation; and governance of the education profession. Short descriptions of: (1) the role of professional associations in promoting change; (2) specific organizational objectives of the NEA and AACTE; and (3) current governance and accreditation processes for teacher education are provided to introduce the specific features of the cooperative pilot project.

Evolution in Bahamian Education: An Experiment with an International Teacher Education Program (McQueen, Theona, University of Miami, Florida) ED 232 993

This paper describes how a plan for the University of Miami to conduct college classes in the Bahamas was formulated and implemented. In July 1973, immediately after their country gained independence, a handful of Bahamian students, sponsored by their newly elected government, enrolled at the University of Miami. Stimulated by their personal interests, their experiences as colonials, and their commitment to a newly liberated homeland, these students secured from their Ministry of Education and Culture an invitation to administrators from the University of Miami to discuss possibilities for bringing higher education to the Bahamas. The program, which began operating in a systematic manner in 1975, has been a milestone in Bahamian education and in the development of the University of Miami as well. By April 1983, nearly 700 Bahamian teachers, already teaching in Bahamian schools, had been granted bachelors and masters degrees in education. Two doctoral dissertations on education in the Bahamas also had been completed.

A Case Study in Redesign: The University of South Carolina Experience (Mulhern, John D., University of South Carolina, Columbia)

The Board of Trustees of the University of South Carolina mandated dramatic changes in the way the university prepares preservice teachers, which resulted in phasing out baccalaureate degree programs in the College of Education. During the three months following this action, new programs designed to foster excellence in teacher preparation emerged through program development efforts by the faculty. The redesigned programs incorporate changes in three dimensions of teacher education: (1) Teacher certification may be earned as part of an extended baccalaureate degree program offered by the colleges of health, humanities, and social sciences, or science and mathematics. The program consists of 138 semester hours, 18 of which may be earned at the graduate level. (2) The academic component now includes a 12-hour modern language requirement. (3) The clinical experience component has been increased by 50 percent to provide more time with children before becoming a teacher. These changes along with new cooperative arrangements within the university and with school districts, the redesign of professional education courses, and the place of international education in the program are discussed.

Part-time Inservice Program for the Associateship Certificate in Education of the Institute of Education, University of Ibadan. A New Approach to Teacher Training Improvement in Nigeria (Ogunranti, Pastor Ayo, University of Ibadan, Nigeria)

This presentation examines the educational situation in Nigeria, especially considering the school population explosion resulting from post-1975 Universal Free Primary Education declared by the military government, and the expansion of educational facilities. Analysis reveals an acute shortage of trained teachers to cope with the expansion and the need for the Part-Time Inservice Teacher Training and Improvement Program. The Institute of Education, University of Ibadan has initiated a unique program--the Associateship Certificate in Education--of the same standard and worth as the Certificate in Education of the full-time program of the Departments of Teacher Education of universities in Nigeria. Also described are the structures of the program, its functions and operations, its spread to many parts of Nigeria, and its attractions and achievements since 1979 when it was established. One of the innovations of the program is a course on Educational Technology--a four-credit course that includes a study of pedagogy on the basis of subject-discipline, and is oriented toward the first two classes of secondary school. Some evaluations are made and future implications attempted.

Preservice Teacher Education and Improvement in Student Teaching in Secondary Schools (Ondo, Chikanori, Okayama University, Japan)

In Japan, according to the Law for Licensing Educational Personnel, the regular teacher's license is given to any person who has graduated from a university or a college and has completed the subjects required of regular teachers. Many graduates of universities and colleges get teacher's licenses every year, but many of them do not become teachers. Research investigated the situations of preservice teacher training, especially student teaching in secondary schools. Questionnaires were sent to 210 faculties of 50 national universities in Japan. The questionnaire's nineteen items were analyzed (83 percent responded), with the following main results: (1) length of student teaching period: A few responses favored prolongation to enrich student teaching, while many favored the present two-week length; (2) student teaching expense: Half felt that it should be charged to students, while others thought that it should be supported by the national treasury; and (3) planning and operating student teaching: Some answers were in favor of its establishment, while others opposed the resultant standardization of the university.

Collaboration in Design of Teacher Education Programs: A Technical Assistance Case Study (Robinson, Donald, Oklahoma State University, Stillwater)

This program explores necessary elements for the development of effective partnerships between institutions, in the successful design or redesign of professional education programs, when one institution is cast in the role of providing "expert assistance" to another. Specific issues include: (1) necessary background information and expertise needed by participants of the two or more institutions or agencies; and (2) factors to be considered in long-range national, sub-sector, or institutional planning for teacher education program development. Also discussed is the development of specific guidelines used by the College of Education for designing collaborative programs, for determining the likelihood of success (beneficial results for all participating institutions and agencies), and for long-range follow-up.

The Redesign of Teacher Education in the United States: External Strategies--Competency Testing and State Program Approval (Roth, Robert A., Michigan Department of Education) ED 233 001

State program approval could significantly influence the redesign of teacher education programs because of its legal authority. This paper reviews the functions of state program approval, and compares these processes with those of national voluntary accreditation organizations, such as the National Council for the Accreditation of Teacher Education. State program approval systems differ considerably across the country; their processes, standards, strengths, and weaknesses are discussed. Other areas of discussion include: the probable future relationship between state program approval and national accreditation; the influence of state examinations on the need for program approval system; and a proposed new basis for program approval, using various evaluations of program outcomes.

Redesign of Initial Training Course (Russell-Gebbett, Jean P., University of Nottingham, United Kingdom)

Dissatisfaction with current practices for initial training of teachers in the United Kingdom is analyzed, and a new curriculum developed jointly by the University of Nottingham staff and the Nottingham schools is described. Comments on the inadequacies found among graduates of initial training courses are examined. Social, economic, and technological pressures for changing these programs are considered. The discussion of curriculum development for initial training programs includes: (1) reactions of school staff to selection and training processes; (2) proposals for improving the corporate exercise on professional training; and (3) difficulties with interweaving theory and practice, phasing pedagogical skill training, and encouraging personal development of student teachers. The isolation of the more fundamental needs of the profession from the more transient issues is also a matter of concern in this case study, and necessitates focusing on future inservice training as a complement to the necessarily limited scope of the one-year (nine-month) professional training for graduates.

External Change Strategies: Competency Testing and State Program Approval (Sandefur, J. T., Western Kentucky University, Bowling Green)

This paper addresses the history and present status of competency testing of teachers in the United States. Attention is given to the types of testing programs used for admission to teacher education programs, for exit or certification, and for on-the-job assessments. The source of the mandates for testing are analyzed and trends examined. Tables are used to identify the states using competency testing, the level at which testing occurs, the skills tested, and the types of tests used. The paper concludes with an examination of significant research questions posed by the implementation of competency testing of teachers.

Redesign of Teacher Education: Internal Change Strategies (Smith, David, University of Florida, and Daly, Norene, Madonna College, Michigan) ED 233 002

A module that incorporates change strategies in use at U. S. colleges and universities is presented. Components include: (1) needs assessment strategies including data gathering; (2) identification of change agents and supportive resources; (3) establishment of rapport and cooperation with other decision-making groups within the institution; (4) suggested time-lines for implementation; (5) evaluation criteria; and (6) a case study illustrating change strategies used at a large university.

Creative Teaching (Smith, Rita E., Brockton High School, Massachusetts)

Educators who understand the secret of creativity know that creativity is inherent in everyone. Creative educators also realize that ideas that improve existing programs need not be major innovations to be creative. Thousands of innovative ideas are introduced every day in classrooms and many of these ideas are amazingly simple. While teacher creativity is ignited and nourished by educational theories and books on the subject, it is also stimulated at meetings that provide opportunities to exchange ideas. Presentations at a workshop where educators discuss the usefulness of their ideas and react to the innovations of their colleagues are described. The workshop offers stimulation and an opportunity for educators to join reality and theory. Practical and creative strategies for integrating many disciplines are demonstrated, including a "living" historic chess game, a fluorescent solar system, Les Noms Langues Europeenes, a six hundred-square-foot floor map, and a massive medieval maze.

Technical Guidelines for InService Teacher Training (Valle, Victor M., Organization of American States, Washington, D.C.)

This paper suggests a teacher training approach that considers, as standards determining the effectiveness of teacher training: (1) the improvement of teaching quality; (2) student achievement; and (3) community and family participation in the teaching-learning process. Within the educational realm, there are some postulates that, because of the great amount of previous experience and theoretical considerations, have earned universal and general acceptance (i.e., relationship between education and social structure, lifelong learning, universal acceptance of some type of "formal education"). The following problems affect the educational systems in developing countries: large numbers of persons still lack basic education, many children dropout before they complete elementary school, and resources are increasingly scarce. Within this reality, teacher training can be defined as a conscious, deliberate, participative, and continuous process implemented by an educational system to: (1) improve academic performance and the outcomes of educational programs; (2) encourage teachers' complete self-development and professional renewal; and (3) reinforce teachers' "spirit of commitment" to the society and the community in which they work.

Guidelines for the Redesign of Teacher Education (You, In-Jong, Korea University, Seoul) ED 232 994

In redesigning teacher education for the twenty-first century, five basic principles should be considered as general guidelines: (1) the professionalism of teachers should become a matter of overriding concern; (2) teacher education should offer itself as the field for the humanization of youth; (3) an interdisciplinary approach to education should be a key factor for the appropriate and effective operation of any modern educational curriculum; (4) the teacher's or professor's character should be a traditional part of teacher education; and (5) teacher education should be equipped with the facilities necessary to keep industrious and talented prospective teachers acquainted with the developing frontiers of technology. Attempts to draw specific guidelines for teacher education in the twenty-first century should cover the following areas: (1) academic organization; (2) student recruitment; (3) curriculum; (4) internship and appointment; (5) inservice education; and (6) academic-governmental relationships.

SECTION II

Teacher Education and Global Perspectives

A Global Dimension for Teacher Education*

Frank H. Klassen, Executive Director
International Council on Education for Teaching

It is estimated that 75 percent of the teachers in today's classroom will be teaching when the twenty-first century begins. Their initial training is history. It does not, in most instances around the world, deal with the economic, political, social, and cultural realities of a globe that is rapidly shrinking in time and distance, expanding in the number of complex human relationships, and becoming more interdependent with each passing year.

Teacher education, despite its failure to cope with current realities, possesses an enviable record for responding to new social, economic, and cultural demands. Such examples as the creation of pluralistic governance structures and provision for local needs, the willingness to experiment and reform, and the continual search for equal educational opportunity, provide optimism that education for a global age lies within reach. The same processes and technology that have allowed unprecedented human interaction on a global scale could help correct teacher education's current isolation from the rest of the world.

This presentation examines the process of incorporating a global dimension into teacher education from the standpoints of institutional commitment, curricula, faculty commitment, and facilities and resources.

Institutional Commitment

Because teacher education is not a self-contained program at a college or university, incorporating a new dimension such as global education affects departments throughout the institution. Such incorporation requires broad institutional support, and makes it imperative that the central administration demonstrate its commitment. For global education, this commitment may take several forms:

1. An institution may publish a formal statement of mission (goals or purposes of the institution) that recognizes the importance of a global perspective and extends philosophical support to academic and professional schools in pursuit of this mission.

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*This article was adapted from Teacher Education and Global Perspectives, Klassen, Frank H. and Howard B. Leavitt, (Washington, D. C., ERIC Clearinghouse on Teacher Education, 1982). ED 216 993

2. An institution's teacher education department may publish a separate statement of its commitment to support instructional, research, and service activities in global education that its faculty and students undertake.

3. A teacher education department may appoint and support an individual or a group from the faculty to coordinate and encourage activities that foster international exchange, technical assistance, and faculty and student programs, as well as improve library holdings and curricular content.

4. Institutions may encourage their administrators and faculties in teacher education to participate in regional, national, and international programs offered by professional groups, national and international governmental agencies, world affairs councils, and foreign institutions and governments.

Many organizations such as UNESCO, the British Council, the United States Information Agency, the Organization of American States, and many others provide specialized support for scholars and administrations to upgrade their skills and expand their knowledge through exchange programs.

In addition to these kinds of programs, teacher educators may participate in conferences and workshops about global education. To encourage dialogue on global issues that face the United States, for example, the U.S. Department of State holds annual national foreign policy briefings for leaders in higher education and teacher eduation. The International Council on Education for Teaching (ICET) also holds annual national and international conferences for administrators and faculties to examine issues in teacher education in the context of intercultural conditions. Cumulatively, participation by the leaders of an institution in these and other programs supports the redirection of teacher education to include a global perspective.

Curricula

Institutional support for global education is needed, especially in teacher education, because students take so many of their courses in academic departments outside the professional school.

Global education is more than one course listing. A global dimension in teacher education addresses the curricular sequence of general, specialist, and professional studies as well as their content, as follows:

1. Sixty to 80 percent of a teacher's preparation occurs in the academic disciplines, the remainder in professional courses and experiences. This division of responsibility calls for counseling early in the student's university career to assist the student in

selecting academic and professional courses that reflect global issues and understanding.

2. Courses in sociology, anthropology, economics, political science, foreign languages, linguistics, and interdisciplinary studies must provide the knowledge needed to fully appreciate such concepts as interdependence, competition, and cooperation. Collaboration between academic and professional faculties helps identify a core of relevant courses that can be used in counseling, and can lead to reassessment of requirements for entrance into the professional sequence. Such collaboration also may lead to reassessment of course offerings and encourage disciplinary and interdisciplinary emphasis on the study of global issues.

The Council on Learning described as follows the contents that curricular offerings in a globally oriented program should manifest:

> o A fundamental understanding of the key elements of global and national interdependence, as taught through the major fields in humanities, the social sciences, the pure sciences, the applied sciences, and the professional disciplines. This understanding should equip college students to analyze and respond intelligently to domestic and international developments. Such competence should be evidenced by a student's independent analysis of the most important strands of the new global circumstances and comprehension of the United States' increased interdependence with other nations for survival and economic growth.
>
> o A deeper knowledge and understanding of another culture, as seen through its history, language, literature, philosophy, economics, and politics. Student perceptions of another culture will substantially enhance the ability to understand their own needs and changing world position, and enable intelligent consideration of highly complex developments on the world scene. Sensitivity to other cultures; increased capacity to analyze issues, having learned other viewpoints; and enhanced tolerance of differences contribute to a citizenry better able to cope in the twenty-first century and to approach conflict resolution.

- General competence in a second language as a basis for the fuller comprehension of other cultures and of one's own in the global context. Language skills are becoming increasingly essential for communication in a wide range of contexts. Students' access to effective language instruction is therefore necessary to the college experience in the 1980s and beyond.

This analysis particularly bears on curricular design, but also serves as a guide for student evaluation. ICET, in its A Global Perspective for Teacher Education (1983) identified five elements that characterize a global perspective:

- Perspective Consciousness. Awareness that one's view of the world is not universally shared; that this view has been and continues to be shaped by ethnocentric and other influences that often escape conscious detection; that others' views of the world differ profoundly from one's own; and that all such views derive from the particular conditions into which one is born;

- "State of the Planet" Awareness. Awareness of prevailing world conditions and developments, including emergent conditions and trends, e.g., population growth, migrations, economic conditions, resouces and physical environment, political developments, science and technology, law, health, intranation conflicts, etc.;

- Cross-cultural Awareness. Awareness and comparison of the diversity of cultures, ideas, and practices found in societies around the world, and some recognition of how the ideas and practices of one's native culture might be viewed by people in other societies;

- Sense of Global Dynamics. Awareness of how the world's systems work, their interdependence and shared concerns, and how local economic and social patterns, which are part of every individual's daily life, can have global consequences;

- Awareness of Ethical Problems in the Global Context. Knowledge of ethical issues that arise from the increased ability to sense, predict, and manipulate global conditions. For example, improved abilities to forecast differentials in the world's distribution of wealth still leave numerous questions of equity.

3. Achievement of these curricular objectives requires examination of current professional courses in education foundations, psychology, and methodology, and review of texts used in these courses. Teacher education students need to become familiar with global concepts and learn to analyze texts and other resources from a global perspective.

4. Learned societies and professional associations can make significant contributions to curriculum development. Faculty and students in teacher education might well benefit from the recommendations and publications regarding global education of, for example, the National Council for the Social Studies, the American Association of Colleges for Teacher Education, Phi Delta Kappa, the National Education Association, and Global Perspectives in Education, Inc.

Faculty Commitment

Incorporating a global perspective in teacher education requires a competent faculty with the requisite training, attitudes, and research capabilities. Recruitment, faculty development, and exchange programs are all important to the commitment faculty exhibit for global education.

1. Recruitment criteria for full- and part-time faculty, such as overseas experience, academic background in area and foreign language study, as well as a publication record in an international area, are integral to the gradual development of a teacher education staff dedicated to a global perspective.

2. Faculty development policies and procedures include inservice education (workshops, seminars, and conferences offered by professional associations and learned societies), sabbatical leave, exchange programs, travel support, and involvement with foreign students as advisors, counselors, etc. Of course, in times of fiscal stringency, faculty development opportunities may be cut. The College of Education at the University of Alabama has provided a unique experience for exposing members of its faculty to a foreign culture. Through a contractual arrangement with an educational institution in Mexico, Alabama professors live in Mexico while providing inservice education programs for teachers. Rotation in assignment has built up over the years a comparatively large number of professors with experience in a foreign country.

3. Faculty exchange programs provide an additional channel for continuing faculty development.

Facilities and Resources

The quality of a teacher education program depends on the quality of its library, instructional media center, and curriculum materials repository. Library holdings should reflect a commitment to global education; continual efforts to upgrade these resources are essential. Policies that assure the acquisition of international materials as well as practices that enable faculty and students to contribute to the development of collections related to global education are equally important.

Conclusion

The introduction of a global perspective into a curriculum, through some of the processes described above, opens up a vast new source of interesting, challenging subject matter. The widening of focus, the broadening of context bring into view new areas of study and provide instructors with a fresh, nearly unlimited source of curriculum resources.

It is just possible that the introduction of a global perspective at every level of school and college could contribute to a rejuvenation of education by providing new sources of motivation for both students and teachers.

The abstracts provided in this chapter outline the various strategies and programs designed to develop a teacher education program with a global perspective.

Teacher Education and Global Perspectives: Summary of Concurrent Session Abstracts

Arnold Gallegos, Dean, College of Education
Northern Arizona University, Flagstaff

The following abstracts can be grouped according to topic or theme, that is, in the papers presented under the general heading of "Teacher Education with a Global Perspective," six distinct areas of discussion were addressed in one way or another by the various presenters. These are:

1. Global perspectives in professional education
2. Student teaching in international settings
3. Faculty/student exchange programs
4. American teachers abroad
5. Utilizing foreign students and scholars
6. Teacher self-actualization

Some helpful approaches are given for identifying resources within colleges and universities that can be marshalled in this important effort. In addition, resources from publishing houses and other organizations and agencies are identified.

Of special interest are various models, a comprehensive framework, a course of study, and a statewide (Florida) plan for developing and implementing globally oriented teacher education programs. One paper focuses specifically on Canadian studies programs, and one describes the unique international educational experiences provided by the University of Pittsburgh's semester at sea program.

The next group of papers deals primarily with or contains a significant component on the placement of student teachers in other countries. Most student teaching placements abroad are with the American International Schools and the U.S. Department of Defense Dependent Schools. However, host national schools and private schools also are being used. Geographically, placements are spread throughout 52 countries with the Council on Intercultural Teacher Education of the Association of Teacher Educators (ATE) serving as a clearinghouse for information on international student teaching opportunities. Placements of student teachers abroad seem to cluster around relatively familiar global locales such as Europe, Latin America, New Zealand, and Australia.

Of special interest are the efforts of Edinboro State College to develop "mental flexibility and cultural emphathy" in their student teachers who are placed in teacher centers in South America and Mexico.

Four papers describe faculty/student exchange programs abroad. The first recounts a program between Goshen College in Indiana and Sichuan Teachers College in the Peoples Republic of China. Intensive study of the Chinese language and culture is emphasized with the aim of developing a greater global perspective. The remaining three papers are case studies describing extant programs as well as presenting practical suggestions on how to plan and implement exchange programs.

Another two papers deal with the experiences and employment of American teachers abroad. One describes what seems to be an extremely valuable approach for training teachers to work with culturally different students. Sponsored by Eastern New Mexico University, this program immerses teachers in Mexican public schools for two weeks, and has resulted in increased teacher confidence in working with Hispanic students in American schools. The opportunity to teach in Mexican schools seems unique and worthy of emulation in other teacher education programs in the border states. The second of these is an interesting research study by Dr. Nora Evers of Kalamazoo College on the effects on Americans of teaching abroad. The conclusion from this research, that American female teachers experience less anxiety and adjust more readily than males, is enlightening.

Two presenters discussed the potential benefits and underutilization of foreign students and scholars in American colleges and public schools. Both papers describe ways in which foreign students can provide an intercultural dimension to classrooms at all levels, including the public schools (e.g., Tennessee). Guidelines are provided to assist public school and university teachers to utilize foreign students and scholars.

The final two papers present interesting approaches for personal growth and development for preservice and inservice teachers in relating to and understanding different cultures. Both seem to emphasize self-actualizing techniques to accomplish their goals.

Internationalizing the Curriculum: Turning Toward Canada (Babby, Ellen R., Association for Canadian Studies in the United States, Washington, D.C., and London, Norman T., Canadian Embassy, Washington, D.C.)

Canadian Studies programs and courses are becoming prevalent throughout the United States. Institutions of higher learning are recognizing that examination of Canada's political system, economy, and culture have been neglected and are in need of attention. Canadian Studies are offered through departments of political science, economics, education, geography, history, literature, anthropology, etc. Teacher educators should be aware of resources available for stimulating interest and establishing courses and programs in Canadian Studies. Grants and services available for Canadian Studies are outlined, and information on Canadian Studies associations throughout the world is included. The report begins with a brief overview of Canadian Studies and discusses how Canadian Studies are incorporated into the curriculum. Efforts being made to promote Canadian Studies overseas are also examined.

A Learning Resource Center for International Education: The Heritage Center (Barnett, Dorothy Prince, et al., North Carolina A&T State University, Greensboro) ED 232 996

This case study describes the resources, utilization, activities, and potential of the Heritage Center--a learning resource center for an international dimension in teacher education. Located at North Carolina A&T State University, the Center serves North Carolina and southern Virginia. The Heritage Center houses a collection of more than 3,500 art and craft items from more than 30 African nations, New Guinea, and Haiti. The center promotes intercultural exchange, and cooperates with and encourages faculty, students, and community groups that have a special interest in Africa to design, develop, produce, and acquire materials and programs related to this area. The center also provides permanent and traveling exhibits, offers inservice workshops for teachers, disseminates instructional materials for use in social studies curricula, provides research resources in African history and culture, and provides advisory and reference service.

Teacher Education and Foreign Language Preparation (Bove, Aldo, Ministry of Public Instruction, Rome, Italy)

Six immediate objectives of teacher education should be emphasized: (1) training away from teacher dominated classrooms; (2) cognizance of teachers' learning styles and those of their students; (3) learning to plan and prepare for each class; (4) expertise in testing; (5) use and operation of audiovisual equipment; and (6) effective dealing with discipline problems. Among long range objectives for teacher education are: (1) teachers should become computer literate and know as much as possible about computer assisted instruction; (2) teachers should be taught how to deal effectively with multi-level classes and with heterogeneous groups within a single class; and (3) teachers should know how to prepare material and adapt texts.

Developing an International Education Program in Preservice Teacher Training (Cole, Donna J., Wittenberg University, Ohio) ED 232 988

Most preservice teacher training institutions are aware of both the charge placed upon them to develop international understanding and the idea of the human family. That we live on a precarious finite spaceship, whose future rests on appropriate organization and ethical interactions, has made it imperative that teachers recognize the world village and the necessity to help the children of the twenty-first century understand the "other." This case study details how a liberal arts institution addressed the charge. The major goals of the project were (1) to increase preservice teacher awareness of international issues, and (2) to establish international student-teaching experiences, with close institutional collaboration and accountability. Six categories for decision making and action were found to be crucial for the achievement of these goals: (1) foundations/rationale; (2) curriculum content; (3) practicum; (4) faculty participation; (5) resources; and (6) administrative commitment.

Development of the International Experience at Edinboro State College (Currie, James F., Edinboro State College, Pennsylvania)

This presentation describes the International Education Field Experience instituted at Edinboro State College during the 1972-73 school year. Its functions have included staffing and operation of teaching centers in Latin America and Mexico. Teaching centers for both student teaching and the Junior Teacher Aid Programs have been conducted in Mexico, Honduras, El Salvador, and the Dominican Republic. The development of mental flexibility and cultural empathy is a unique part of this program. One important requirement is that the student learn a general technique for studying all cultures, even though he or she is concentrating on one particular culture during this experience. Values or attitudes which will result in the successful operation of a foreign internship include: (1) reduction of ethnocentrism; (2) impracticality of attempting to stereotype a culture; (3) avoidance of emphasis on cultural differences; (4) realization that our scale of values are inappropriate for judging other cultures; (5) development of empathy and an active concern for other people in the world; and (6) discernment of interrelationships between language and culture. Also discussed are program operation, curriculum components, prerequisite courses, and outgrowths of the field experience.

Infusing a Global Perspective into Professional Education: The Illinois State University Action Plan (Dunifon, William, and McCarthy, JoAnn, Illinois State University, Normal)

One of the most significant results emerging from the Council on Learning's survey, "What College Students Know and Believe about Their World," was the discouraging performance of prospective teachers on the nationwide test given to college seniors. Students graduating from teacher training institutions remain woefully ignorant of important global issues and lack the knowledge and skills needed to teach from a global perspective. Although many institutions in the United States have begun to "internationalize" the curriculum to varying degrees, few colleges of education have identified this problem as a priority. Most of the activity seems to be at the general education level in colleges of liberal arts and sciences, with little or no follow-up in the professional education component. At Illinois State University, the College of Education has undertaken a revision of the teacher education curriculum and is encouraging the university to provide support at the general education level as well. Although it is one of the largest teacher training institutions in the United States, Illinois State University has limited resources to build such a globally oriented program. Nevertheless, valuable human, curricular, and material resources have been identified, and many of the activities could be easily replicated by other institutions, regardless of their size or location.

Teaching Outside the United States: Teachers in American Schools Abroad (Evers, Nora M., Kalamazoo College, Michigan) ED 233 007

This paper discusses research conducted last year in four different American Schools abroad: The American School of Guatamala; the American School of Mexico in Mexico City; the American School in the Hague and Amsterdam, the Netherlands; and the American School in Brussels, Belgium. Extensive information deals with the cross-cultural experiences of the teachers, their educational preparation, and other home background variables. Other variables include the extent to which these people interact with host nationals, and their regard for American students in their school as compared to host national students. A variety of measures indicated levels of self-esteem of the teachers, faith in their country and world mindedness, and locus of control. Comparisons are made between male and female teachers, and other comparisons look at differences of interaction of American teachers in Central American countries versus Northern European countries. Special attention was devoted to the analysis of the lives of American teachers as "third culture people," distinguished as a category by high mobility and advanced skill or education. Mediation roles, meaning that they have assumed a representative role rather than an individual role, are also discussed. The study found that the locus of control (external versus internal motivation) is almost always externally oriented for the women. Measured values, terminal as well as instrumental, differ greatly between male and female respondents. In most cases, women teachers experience less of a sense of normlessness when moving to a new living place and are usually able to adjust with less anxiety.

Becoming Self-Educating and Culture-Creating by Being Educated Trans-Culturally (Fersh, Seymour, Brevard Community College, Cocoa, Florida) ED 232 984

To live affectively and effectively in our rapidly evolving global society, individuals need additional kinds of knowledge and creative ways of becoming more self-educating. Previously, the process of education was really one of training--the learner was encouraged to follow the ways of priests, parents, professors, and patriarchs. This system works well as long as two conditions exist: if there are few modifications in the society (ideas and livelihood), and if a person remains in the same place. Increasingly, the opposite conditions are true: few, if any, places are escaping rapid changes, and fewer people live out their lives in their birthplaces. These new conditions create new human needs, one of which is the development of better prediction of future developments and preferences. Individuals also need to encounter contrasting (culturally different) views, so that they are reminded that viewpoints are cultural rather than natural and that potential beliefs and behavior are not limited to original cultural inheritance. Learning about/from other peoples and cultures will not only increase knowledge and awareness, but also complement individual and general insights. Individuals need to become their own teachers and continue the process of self-educating. No content can serve this purpose better than cultural studies. Through involvement and purposeful study, individuals can be helped to develop desirable qualities of empathy, humility, humor, respect, gratitude, honor, puzzlement, and an overall sense of what it is to be human.

Student Teaching in an International Setting (Fostvedt, Donald, R., Lock Haven State College, Pennsylvania) SP 022 893 (ED Number not yet assigned)

As a part of Lock Haven State College's "Mission in International Education" program, student teachers were placed for half a semester, beginning in the fall of 1976 or the spring of 1977, in American and/or international schools in Quito, Ecuador, and Vienna, Austria. Since that time, additional schools have been selected and used in Europe and Australia. In May, 1978, a conference was called by the presidents of the thirteen state colleges and universities in Pennsylvania to unify the international education efforts of the institutions. Since that time, students from most of the state colleges and the university have participated in the program, as has the College of William and Mary in Virginia. For a period of two to three weeks each semester, one college supervisor is sent to Europe and another to Ecuador, where they supervise student teachers. The remaining supervision is done by qualified local personnel. In Australia and Nottingham, England, college supervision is done by local college personnel. Since this program began, four students have returned to Quito to teach and others have been offered contracts. In Europe, several students have been offered teaching positions in the schools where they student taught.

A Current Profile of the American Teacher, American Teacher Training, and Work Context: Implications for International Education (Gardner, William E., and Howey, Kenneth R., University of Minnesota, Minneapolis) ED 232 987

Descriptive data on characteristics of preservice and inservice teachers are examined, and modal aspects of preservice and inservice training are analyzed. The context of teaching is briefly examined from the vantage point of both current and evolving expectations for and demands upon teachers in the United States. Each of these factors is explored in terms of implications for the type and modality of international education they suggest.

The Contribution of International Students to Elementary and Secondary Social Studies Curricula (Greninger, Gem Kate, and Greninger, Edwin T., East Tennessee State University, Johnson City)

This paper describes a social studies curriculum experiment conducted in the Bristol, Tennessee, public schools in conjunction with a preparation program for school administrators and supervisors at East Tennessee State University. International graduate students enrolled at the college serve as resource persons for students in grades four and six at the elementary school and for students studying world history and geography in the secondary school. A graduate course, "Multicultural Education and Educational Leadership," was offered at the college while international students were participating in the curriculum project. The project contributed to development of the international dimensions of the administrator preparation program by stimulating awareness of leadership practices that are compatible with the needs of multicultural community schools. Course activities and evaluation procedures are described.

Shipboard Education: A Comparative Approach to Study Abroad (Griffiths, M.A., University of Pittsburgh, Pennsylvania)

Shipboard education programs provide a unique educational experience for studying the comparative aspects of societies and world problems. Such programs combine traditional classroom work with carefully chosen supporting educational programs in the countries of call. The University of Pittsburgh's Semester at Sea program is directed toward undergraduates and is focused primarily on the social sciences. The courses offered are tailored to the itinerary of the around-the-world voyage. In addition to traditional courses, other courses that deal with world problems--environmental issues, population questions, foreign policy interrelationships, economic forces, and other areas--are developed. The shipboard methodology can be adapted to many areas of study. International education, trade, and comparative medicine are areas that fit into the shipboard concept.

Teacher Education and Global Perspectives (Hamblin, Frank N., Lock Haven State College, Pennsylvania)

Practical advice is provided about how to plan and set up international educational exchange programs in teacher education. Suggestions are given for various steps, such as envisioning a program appropriate for a particular campus, selling it to various constituencies, finding the necessary contacts abroad, and developing a comprehensive (though brief) written contract with the overseas partner. The contract should cover arrangements for transportation, housing, health insurance, and similar essentials. Emphasis is on the construction of long-range, continuing mutual agreements that require little or no funding from external sources. Functioning agreements between American institutions and institutions in Argentina, Australia, Great Britain, and Poland are used as examples.

Global Issues in Curriculum Development (Harf, James E., and R. Thomas Trout, The Ohio State University, Columbus)

This paper describes a framework for understanding global issues and strategies for integrating specific issues such as food, energy, population, and environment into a curriculum. The framework's substantive dimensions, such as the historical evolution, the structure of a global system, and its basic contemporary characteristics, provide the requisite foundation for inquiry. This framework is applied to specific issues by employing four distinct, analytical perspectives: (1) Who are the global actors involved in the issue and what are the linkages among them? (2) What prevailing values are operating and how have the relevant actors responded to these values? (3) What policies are applied by these actors at the global level and how are these policies determined? (4) What futures are represented in the values and policies of these global actors? Strategies for infusing global issues into the curriculum are suggested.

International Student-Faculty Exchange: A Case Study (Mars, Walter J., Wesley College, Delaware)

> A case study of the circumstances that led a college administrator to internationalize the college curriculum is described, along with the subsequent rationale behind an international student-faculty exchange. A description of the processes at two institutions which culminated in the exchange is included.

State Plan for Global Education in Florida: Findings and Recommendations (Martin, William C., The University of West Florida, Pensacola)

> The content and development of the Florida state plan for global education is described, including its rationale; task force; policies; regulatory units; state and local networks; role of the department of education and of local schools; teacher education programs; university and community college programs; community and adult education; state, community, and international agency resources in global education; libraries; and media and learning resource centers. In addition is a report of findings and recommendations crucial to the development of any state plan for global education.

Training Teachers to be Global Minded: A Course of Study (Martin, William C., The University of West Florida, Pensacola)

> The rationale for a course for training teachers to be global minded, and its implementation process, goals, content, competencies, delivery procedures, and student requirements are discussed.

Inter/Intrapersonal Factors in Teacher Development: A Humanistic Approach to International Teacher Training with Implications for Bilingual Children (Rodriguez, Sara, Lincoln Hospital Children's Education and Rehabilitation Clinic, New York, and Cosenza, Anthony, College of New Rochelle, New York)

> Positive teacher self-image and interpersonal strength are important areas that should be addressed in the curriculum of teacher training programs. This presentation/workshop provides educators with practical multimodal techniques and strategies for maintaining positive self-image and successfully communicating with colleagues, authorities, and children. Case studies, selected from a learning center and an inner-city, predominantly Hispanic, diagnostic population, are presented, with focus on salient cultural variables in constructive relationships between subject and evaluator.

Curriculum Resources in Global/International Education (Smith, Andrew F., Global Perspectives in Education, Inc., New York)

Extensive curriculum resources already exist to help add a global dimension to teacher education programs. These resources include commercially published material, fugitive materials from educational organizations and projects, audiovisual materials, and the expertise of consultants. This paper describes existing resources and how they can be acquired and incorporated into existing teacher education programs. Resources from over 150 publishers, organizations, and programs are discussed, and a bibliography is included.

Foreign Students and Scholars: Underutilized Resources on Campus (Reichard, John F., and Reed, Linda, National Association for Foreign Student Affairs, Washington, D.C.)

The world view and knowledge of Americans should be expanded so that attitudes toward foreign students are altered from "different and therefore problems" to "different and thus valuable assets." Incorporating international/global perspectives into all aspects of United States' educational curricula is an important step in preparing students to function effectively in an interdependent world. Foreign students represent a valuable asset in bringing world and intercultural dimensions to classrooms at all levels. Many innovative programs involving foreign students as resources are being conducted throughout the United States: college-age foreign students and scholars working with their peers or visiting local elementary and secondary schools; foreign students in grades K-12 serving as resources in their own classes and schools or visiting other schools; foreign students at all levels participating in various community activities. Brief descriptions of some of these programs are given. Several publications are discussed which provide information to assist teachers at all levels in involving foreign students as educational resources in classroom activities.

Field Experiences for U.S. Teachers in Mexican Schools: A Case Study (Theisen, Gerald, Eastern New Mexico University, Portales)

Along the United States' southwestern border with Mexico, the forces of population and economics have been responsible for classrooms with large numbers of students from Mexico or of Mexican ancestry. Many experienced teachers are struggling with classroom realities unmentioned in their teacher education training. For the past several years, teachers from districts throughout eastern New Mexico have participated in an experimental course, "Field Studies in Educational Foundations: The Mexican Education System." The course goal has been to train teachers in New Mexico to relate better to Mexican students and their parents. Results from a series of questionnaires, and follow-up site visits, show that a two-week period of immersion in Mexican public schools in Chihuahua has dramatically given teachers the confidence, based upon knowledge and experience, to function more effectively in their "binational" classrooms.

Globalizing Teacher Education: Redesigning the Concept (Titus, Ujjwala Salve, et al., Cheyney University of Pennsylvania, Cheyney)

A brief introduction and description of the Pennsylvania model for globalizing school curriculum is given. Program implications for teachers are discussed, along with the impact of international understanding and the skills and attitudes necessary for the twenty-first century.

International Student Teaching (West, Brad, Youngstown State University, Ohio)

It is surprising to learn that approximately 1,000 student teachers from 100 United States institutions complete undergraduate student teaching in some 52 foreign lands each year. The Association of Teacher Educators (ATE), Council on Intercultural Teacher Education serves as an umbrella organization among U.S. institutions and as a clearinghouse of information on international student teaching. The Council promotes the research and development of programs through international cooperation and has available a set of objectives and guidelines that underlie international student teaching programs. U.S. institutions have several international student teaching management models, ranging from a permanent, on-site program director to cooperative arrangements among host national schools/institutions and sponsoring U.S. institutions. Student teachers may be placed in host national schools, international schools, private schools and/or the U.S. Department of Defense Dependent Schools. The language of instruction in the schools should be English. Student teachers participate in thorough predeparture orientation programs and have defined a set of educational and cultural objectives before departure. The Council may be reached by writing to: Dr. Brad West, Chairman, ATE Council on Intercultural Teacher Education, Assistant Dean, School of Education, Youngstown State University, Youngstown, OH 44555.

Critical Issues in Internationalizing Teacher Education: A Formula for Developing Global Perspectives (Wheeler, Alan H., Radford University, Virginia) SP 022 875 (ED Number not yet assigned)

> Before 1978, the School of Education at Radford University had no international/multicultural programs. Through organizational change and the development of a commitment to international education, numerous preservice and inservice programs have emerged. A model teacher education program also has been institutionalized as a result of this change process. Programs that have emerged during the past five years include student and faculty exchanges, student teaching in England, a seminar abroad, and a semester abroad. Information about the processes used to effect these changes could benefit those in positions of leadership in similar educational institutions. This paper describes these strategies, along with international dimensions of the programs and the new teacher curricula that have emerged.

Exchange Programs: Focus on China (Yoder, Sam, Goshen College, Indiana)

> In 1979, Goshen College initiated an undergraduate student exchange program with Sichuan Teachers College in the Peoples Republic of China. Twenty-one Goshen students studied and taught in that south-central province in China, while nine teachers of English from Sichuan came to Goshen for one year to study American and British literature. Currently, the fourth group of Goshen students, under the leadership of a faculty member, is going through intensive language study and orientation for its fall assignment in Chengdu. The Goshen-Sichuan program was financed in part by local foundations and is progressing well without government funding. The China location is one of six around the world where Goshen students study and engage in service projects to fulfill international education components required for graduation. Students spend one term (14 weeks) in a foreign culture studying the language, history, politics, and the arts. They develop cross-cultural awareness, experience culture shock, and begin to think and act with greater global perspective. Student exchange programs yield an "arsenal of ideas" for peace and understanding.

SECTION III

Educational Planning for the Twenty-first Century

Educational Planning for the Twenty-first Century

Mavis G. Gilmour, Minister of Education, Jamaica

J.Z. Young in his recent Reith Lecture said:

> Men have gradually learned the great advantages that come from being able to convey information fully and exactly to each other. It is man's capacity for reciprocal communication and his capability for self-regulation that give him the tools to move mountains, to hold communities together and to survive.

It seems to me that Young has put into a nutshell the bases of educational planning for the twenty-first century: our aptitude for reciprocal communication and for self-regulation, our productive capacity, our neighborliness, and our hope of survival.

These recognized bases are affected by national and international developments, which produce global trends that affect the goals, structure and content of education. The article looks at the trends, but it makes no attempt to set priorities nor to identify which of the trends will have the most significant consequences for education. That some of the trends are interactive and mutually reinforcing makes difficult the task of arranging them in any order of magnitude or importance.

Science, Technology, and the Pace of Change

Change has always been a feature of society. What is new is the rate at which change is occurring and will continue to occur. The time lag between scientific discovery and technological application has been shortening steadily since World War II, and new technologies are being discovered with ever increasing rapidity. Since technology profoundly affects our lives, the rapid emergence of new technologies means that people are constantly having to adjust to new circumstances. A striking example of adjustments being made is provided by the rapid developments in the field of microelectronics: microelectronic technology is turning up everywhere-- in the productive sector, in the home, in schools and universities, in offices. The computer is all-pervasive, and educators already are contemplating the problem of computer illiteracy. Added to the vast field of microelectronics is the more rapid means of communication and information retrieval. The results are much more drastic transformations in the world as a whole during a person's lifetime than was the case during a span of two or three generations in the last century.

These drastic transformations create acute problems. In many instances people are left disoriented by the emergence of innovation after innovation whose significance they frequently do not grasp. The temptation, then, is either to opt out, or to accept passively without question the direction in which change propels our society. For developing countries neither alternative is helpful; the former leads to stagnation, the latter to greater dependency on industrialized countries.

A major challenge to education is to bridge the gap between the world of technology and the mass of people. The forming and informing of public opinion in the face of rapid technological progress is a matter of the highest priority. Ways must be found to keep the mass of people constantly abreast of major advances in technical knowledge that have implications for their lives and livelihoods.

Within the formal education system, the function of preparing people for change is becoming all the more difficult to discharge. Not only is change occurring rapidly, but it is becoming increasingly more difficult to predict the direction of change. Thus, content and curricula lag behind the advance of knowledge, particularly as regards the teaching of science and technology.

The Changing Nature of Employment

Rapid technological advances are bringing about changes in the nature of employment, and a growing trend toward greater sophistication. The microelectronics revolution is reducing drastically the need for unskilled labor and workers who perform routine tasks, and is giving more emphasis to the need for workers with the ability to use and supervise machines. Labor-saving devices in the home, electronic typewriters and word processors in the office, and robots in factories are all contriving to make redundant unskilled or semi-skilled workers.

Developing countries face the dilemma of embracing the new technologies, which offer the capacity for greater production and productivity but increase the problem of unemployment, or of refusing technological advances and reducing unemployment but losing out in terms of competitiveness. The way out of the dilemma is clearly in educating people for new forms of employment. However, against a background of high illiteracy and the high cost of education, as is the situation in many developing countries, this represents a formidable educational challenge.

Education for Career Mobility

Several careers in a lifetime is another global trend to be considered. A consequence of the pace of change is that a significant fraction of the labor force will have more than one career in the lifetime of the individual. Some jobs simply will become obsolete by mid-career for many workers, although the work was viable when the person entered the labor force. In other cases, the prospects of rapid advancement and increased material rewards in new areas will provide the stimuli for change.

At present, career switching occurs in relatively small numbers, but it is likely to become increasingly more significant. The implications for the education system are that opportunities will have to be provided either for persons to be retrained in a formal system or for them to be self-educated.

Demographic Change

The rise in life expectancy and demographic change are definite global trends affecting education. With improvements in health care and delivery, life expectancy is rising steadily all over the world. Many developing countries--such as my country, Jamaica, have now attained the life expectancy of industrialized countries. The trend will continue, and people 60 years and older will constitute a steadily greater fraction of the population. The age of retirement from work either will go up, or where this is impractical because of unemployment among the young, more people will have more years in retirement. Either way, education is implicated: first, the question of updating or retraining becomes significant, and second is the question of the use of leisure. Training for leisure more and more will become a significant feature of education, and the cultivation of hobbies through exposure in formal and nonformal education will come to be regarded as an important dimension of preparation for full, satisfactory living.

Keeping Up With Needs

The widening gap between the delivery capacity of formal education and the educational needs of the population is another global problem. Major realizations since 1950 are that education is not only a fundamental right for all individuals, but also a prerequisite for progress. This explains both the unprecedented expansion of formal education throughout the world, and the trend toward compulsory primary education, at least, for everyone.

Yet, the gap between the delivery capacity of formal education and the educational needs of the population persists. Population increase and the rising cost of formal education have made it impossible for countries to provide education for all and simultaneously cater to the necessity for a highly qualified workforce. This trend will necessitate the search for alternatives to traditional classroom teaching. More use will have to be made of educational technology and nonformal education, and this in turn will mean a different kind of teacher training, and more involvement of persons, other than teachers, in the transmission of knowledge. Essentially we shall have to create a learning society, where learning is continuous and takes place everywhere and anywhere.

The Danger of Monoculture

Education must face the significant trend to monoculture due to the impact of modern technology and transportation. One consequence of modern technology is a growing tendency toward uniformity in many countries and in many sections of the population. In every area of life, from food to clothing and transport to leisure, the same patterns of consumption are tending to spread.

This tendency toward monoculture is enhanced by the rapid means of communication and exchange of information which exist, and which increase daily. This trend could be disastrous, as the logic of uniformity is the destruction of everything that resists it. Whole cultures could perish, and the lack of cultural diversity could result in a stagnant, monotonous world.

The preservation of cultural values despite rapid technological change is a serious, difficult challenge facing education. Obviously, we cannot turn our backs against scientific and technological developments. Hence, education will be required to transmit and renew the important elements of a nation's culture while incorporating science and technology into the life of society in a controllable manner.

Global Interdependence

It is a cliche to say that the world is shrinking, but this does not negate the validity of the statement. Global interdependence is a reality, and the trend toward greater interdependence is likely to continue. Communications technology and information exchange along with a flood of international migrations have meant that societies, which until a few decades ago were ignorant of one another, are now in regular, close contact. For example, ecological damage caused by the activities of one country, such as oil spills or increase in the level of carbon dioxide in the atmosphere, affects other countries. Likewise, users of raw materials such as oil, minerals, and grains are depending more and more on distant producers, who themselves depend on faraway suppliers of manufactured products. The economic strategies of all states are influenced by international competition, and the net result is a complex linkage of complementary interdependence and dependence among the nations of the world.

Global interdependence, despite its obvious potential for creating a new world order, also creates new conflicts and tensions. International migrations increase the chances of racial conflicts. Revolutions and changes of regime in any part of the world often trigger reactions in other countries, such as instability of commodity prices that affect balance of payments and living standards of most countries. Global interdependence has made the maintenance of world peace a much more complex problem.

Choosing Priorities for Education

Ignorance about the circumstances and cultural characteristics of other nations probably has contributed much to world tension and conflict. It seems clear that an enormous task in the future will be to educate people about global issues and the international dimensions of national problems. It is ironic, perhaps, that developing countries as a result of colonization are better informed in some ways about the industrialized countries of the world than is the reverse, a fact that illustrates the certain need for a measure of internationalization of education. Perhaps this is what U Thant had in mind in conceptualizing a United Nations University where undergraduates from all parts of the world would study issues of worldwide concern. Perhaps this is a high priority role for ICET.

How will policymakers, planners, educators choose priorities for education when so many global trends demand attention and all affect the final result--the quality of human life? While global trends have implications for all countries, developing countries by and large will be affected much more than developed countries by the technological revolution and the rate of change, by demographic change, by the widening gap between delivery of formal education and the educational needs of the population, and by the trend toward monoculture. It stands to reason that priorities in developing countries will differ from those of developed countries. The following are priorities as seen from my perspective in a developing country.

The first priority should be education for all including scientific literacy. Education is crucial to development, not just for the elite--the leaders, thinkers, and professionals--but for the entire population so as to enable them to participate and contribute. Compulsory primary education for all must be made a reality, and in the process it will be necessary to ensure that everyone achieves a certain measure of scientific literacy.

Second, developing countries must ensure the preservation of their cultural values against the trend toward monoculture. Traditional values so necessary for the social and cultural stability of societies are being eroded by external values, notably consumerism, that are products of modern technology. Danger lies in the efforts to close the technological gap if we lose sight of the negative consequences of absorbing technology without suitable adaptation to the cultural milieu into which it is transferred. The need to marry the social sciences with science and technology in our education system is a major challenge for developing countries.

Third, developing countries must find effective alternatives to formal education. There is a limit to the amount that countries can expend on formal education, given all the other pressing claims on the budget. As the cost of formal education increases, and this is inevitable, alternatives that are cheaper, but nonetheless effective, will have to be found. In this respect, technology is coming to our aid; computer assisted instruction seems likely to play a significant role in education. Satellite communication and the diminishing cost of television hardware also will help, but training of persons to produce the software will be crucial. Much more training at the work place will be needed, which means emphasizing nonformal education.

Fourth, a system of lifelong education is essential. Among the consequences of rapid change is early obsolescence, a phenomenon which is increasing. For example, it is estimated that 50 percent of what an engineering undergraduate learns now will be obsolete by the time he or she has graduated. The implication of obsolescence is that education and training must be a continuous process during an individual's lifetime. Opportunities for updating and retraining have to be provided. Education will have to be increasingly broad, aiming not at "vocational" training but at developing a potential for further and continuous training. Two common defects of current educational systems must be excluded, namely rote learning and premature specialization. Transdisciplinary studies, e.g., integrated science, social studies, environmental studies, etc., will need more emphasis, and a sound general base, even at university level, will have to be contemplated.

A general education base is essential to meet the needs of the shrinking world and the consequent interdependence of its people. Education interchange will be as vital as economic interrelationship between North and South and equally important between South and South. This interchange must span the total spectrum from policymakers, planners, and practitioners. Surely, nongovernment international organizations such as ICET have an invaluable role to play, because the creativity of committed volunteers often exceed that of paid national employees.

Consensus exists that there is at present a world crisis in education. In the developed world the crisis may be one of quality, but in the developing world it is one of quality and quantity. No solutions are obvious or available to the North or the South. The world is faced with questioning and reshaping the fundamental principles on which education is based and with redefining the resultant purpose of education.

Contemporary philosophers of education present us with conflicting views. Adam Curie, N.J. Small, Faure, Carl Beeby, Ivan Illich and many others are grappling with the problems. This century will not be the first time that the role of education is questioned and is changed: a glance at history shows that the medieval university concept was education for its own sake, the classical tradition was education for enjoyment and enrichment of life, in the eighteenth century education was to enable man to produce, the twentieth century has had national development as its purpose of education. Now, the twenty-first century is demanding a new definition.

The demand is urgent and impatient of debate because, while we have not yet had time to adjust to the shrinking of the world through the advances in travel, communication, and microelectronics, simultaneously we must take into our lives the world's expansion into space and under the seas.

Can education meet these challenges? Faure in his report says there is a "race between education and catastrophe," where the nature of the catastrophe is dictated by worldwide acceptance of some results of education. Catastrophic results include the following: that education is a personal investment to achieve a consumer and not a producer status, that it is a way of attaining social advancement, that it must lead to employment in towns rather than rural areas, that it leads to a switch from professional to administrative responsibility, and that education puts many people from the developing world into antipathy with their surroundings and their cultural heritage. Do other educators agree that these are catastrophic results of twentieth century education, and if so, wherein lies the path to change?

Developing countries have yet another catastrophe in education: the dilemma of what is demanded versus what is possible. The inability to adjust expectations to economic realities often leads to social disruptions and may result in the disintegration of fragile young nations.

It is an historic fact that most revolutions are conceived by unfulfilled frustrated intellectuals who influence and misguide great numbers of illiterates. A catastrophe of education at both ends--too much and a wrongly directed education at the revolution leader's level, and too little or no education of those who without the ability to elevate, follow blindly.

What answers will be found by the twenty-first century? It may be that less education is what is needed--that is, more people or better still, all people satisfactorily achieving lower level of general education that will equip them for lifelong self-learning and creativity, but that will not alienate them from their culture nor give them a client relationship with their society.

The educators of this decade will have to point the direction--educational planning for the twenty-first century must win the race with catastrophe.

Education for survival is the watchword of today.

Educational Planning for the Twenty-first Century: Summary of Concurrent Session Abstracts

David Johnston, President
College of Preceptors, London, United Kingdom

We are nearly tripping over the broad threshold of the twenty-first century. The melancholy mathematician may say we have but 0.1625 of the twentieth left. It is in this context we can look back and look forward, bearing in mind the abstracts which follow. They certainly compel us to reflect on twentieth century achievement and to indulge in some forecast about the twenty-first.

The twentieth century began globally with a massive tradition of illiteracy and, simultaneously, the realization in developed countries that education should be free, universal, and obligatory. In the course of achieving this target of spreading educational opportunities, we used and invented a number of sloganized data. These included the psychology of individual differences, the sociology of equality of opportunity, and the philosophy of curricular mutation.

No sooner had one or more of these admirable perceptions been appreciated and applied in a world sense than the momentous discovery of the need for education for life thrust itself upon us. "Elementary" (or primary) education now meant also nursery-school education and post-school education applied to all people right up to their final act on earth. Vocation and leisure and change all demanded an expansion of educational facilities.

For long, teacher education had embraced much study of and research into the pupils of our schools. Now a new interest grew in the detailed study of the development of teacher students themselves in their preservice courses. Children were no longer the only population about which to pontificate. Then almost as the understanding of the need for education for life was upon us, the inservice activities of teachers became manifestly important and worthy of study.

These changes between them shook the former teacher colleges to their foundations; in some cases they produced universities and in all cases lost the isolation of monotechnic institutions.

Early in the century, but inexorably gathering momentum rather like developments in flying as the years went by, came the greatest revolution in communication since the invention of printing. Audio, visual, and audio-visual modes of recording and reprography began to influence school and domestic learning as never possible before. The bearing of these devices on social and political growth can also be understood.

Quite early in the present century a tide of education research began to flow. All the other changes so far noted contributed to the growth of research, to its procedures, and to the dissemination of its results. A new specialism, that of teacher-researcher, was being created. Research techniques developed in other fields: industry, medicine, commerce, military affairs, and advertising. Here was to emerge what may well prove the greatest tool of the third millenium, viz. the computer and the advanced silicon chip. The television tube and the videotape may alter home and school education and teaching as much as Caxton altered the role of the scriptorium.

By nature "progress" has within it other elements. Two crudely bestial wars showed how thin a veneer was human civilization. It may be hoped that the extortionate costs of war have been offset by a new understanding of international relationships. In the present century we have moved on from formulating maritime and military international law first of all to the League of Nations. Then after a dreadful faltering political error and infamous genocide, we human repentants formed the United Nations and with it UNESCO. The conceit of "Spaceship Earth" has emerged as a part-tribute to man for his greatest physical achievement, landing on the moon.

Flight, computers, satellite communication, and immediacy of information have all altered our curricula and set new challenges. The biggest one, still remaining most formidable, and also referred to in the papers which follow, may well be that of numbers aboard our spaceship Earth. We are capable of planning how to produce the satisfying life with work, leisure and food for all aboard. We can tackle some of the problems likely to be encountered; the papers on Northern Ireland and Latin America show some of the ways to approach educational difficulties.

A Paradigm for Human Services Education in a Global Society (Bright, Larry, and Das, Ajit, University of Minnesota, Duluth) ED 232 999

With increase in the need for education for individuals to function effectively in an information society, the pressure for human services providers to accept additional responsibilities to educate more of their clients has been recognized. However, professionals in education, allied health, mental health, and social work have not conceived their task to be that of providing both formal and informal education services. A much broader view of education beyond schooling and social services is needed. A new paradigm of education delivery and personnel preparation needs to be developed. The effort requires collaboration among human services professionals. For this effort, integration of the highly specialized human services professions is advocated, with emphasis on a core professional personnel preparation curriculum and a professional university organizational union of these professions. University programs of professional preparation in these fields must lead the way for change. Cooperation in the development of a human services education core curriculum and university reorganization of academic structures must be initiated by educators with systems perspectives on the spectrum of societal educational services.

The Use of Research Knowledge in Teacher Education and Teaching: What We Need to Know (Buchmann, Margret, Michigan State University, East Lansing)

This paper analyzes limitations and problems associated with the use of research knowledge in teaching and teacher education and considers what teachers and teacher educators need to know. Behind the quest for knowledge utilization are assumptions and beliefs about knowledge and action. Understanding research knowledge solely in terms of utility is a limited--at times unwarranted--view. This reductionist view does not capture the realities and aspirations of teacher education and teaching. Only if the theory-dependent, selective, and time-bound nature of research knowledge and the practical ethics of teaching are understood can teacher educators and teachers use research knowledge wisely. Preservice and inservice teacher education programs should have components that enlighten teachers about the characteristics of research knowledge and that stress the point that many everyday actions in classrooms are responsible acts of public significance.

The Beginning Years of Teaching: A Focus for Collaboration in Teacher Education (Bush, Robert N., Center for Educational Research, Stanford University, California) ED 232 985

> The beginning years of teaching are a troubled part of the education profession. The attention of the profession should be directed toward these beginning years. A plan for adding these beginning years to the initial preparatory period would substantially lengthen the training period, enabling newcomers and senior persons to collaborate as colleagues in school improvement. Others could also join in the process, including college and university personnel, state accreditation and licensing officials, trainees, students, and community members. This is an opportune time in educational history to increase sharply the amount of energy, time, money, and other resources devoted to teacher education. This new force should focus on reforming the beginning years of teaching in such a way that the whole of teacher education is influenced. The result may be a renaissance in teacher education that will reverberate through an entire education system.

The Redesign of Teacher Education for the Year 2000: The Role of Ideas in Teacher Training and International Education Cooperation, The Italian Case. (Clavarino, Luigi, Ministry of Public Instruction, Rome, Italy)

> Redesigning the teacher's role for the next century is a multifaceted and complex subject, rich in philosophical and practical implications, dependent on the state of economic systems and the interplay of dependent and independent variables at work in society. The role of the teacher will be dependent on social conditioning as well as on the notion of the ideal teacher developed by philosophers, sociologists, psychologists and teachers. The teacher's role will also be dependent on the way in which politicians, administrators, parents, students, and pressure groups facilitate or hinder ideas. Many good ideas have been suggested for educational reform in Italy, but there is a gap between the ideas and their implementation that sometimes diminishes their potential effectiveness. The role and quality of teacher training in Italy is discussed, as is the effectiveness and implementaion of laws and constitutional amendments dealing with education in Italy. Educational institutions' autonomy and independence, and the effects of this on decision making and innovation are described.

Updating Teacher Education to Respond to Emerging Concepts of Education (Das, Ajit, and Bright, Larry, University of Minnesota, Duluth) ED 233 009

Futurists and other social scientists anticipate that large-scale changes in social structures and processes will occur with advances in telecommunication and information-processing technology. These changes will affect every aspect of human life--family living, education, occupational structure and work processes, and leisure activities. Education will acquire new importance in a rapidly changing society, in which successful adjustment will depend on continuous acquisition of new information and upgrading of skills. Opportunities for learning will be more widely diffused in different institutions of society. This new world of learning will require a new kind of educator--one who is more broadly educated and has a larger repertoire of skills, including facility in using new technology. This paper focuses on how current programs of teacher education need to be modified to respond to the challenges of the future.

Teacher Education in Northern Ireland: Case Study (Fulton, J.F., Queen's University, Belfast) ED 233 006

This paper analyzes the current status in Northern Ireland of teacher training, a field which is experiencing radical changes. The rapid expansion of schooling during the 1950s and 1960s called for a major response from teacher training institutions. The introduction of concurrent undergraduate degree programs for teachers in 1968 brought colleges of education into closer association with Queen's University, but not quite into the mainstream of higher education. The Lelievre Report (1972) confirmed this association; however, the report miscalculated demographic trends and the demand for new teachers. Subsequently, demand has fallen markedly, and the resulting contraction has created major problems of a kind the teacher education system has not previously faced. During the last two years, the government Department of Education has been trying to rationalize the problem. Four issues have emerged: (1) the demand for teachers from different types of schools, including voluntary maintained (Roman Catholic) schools, and controlled (Protestant) schools (the small size of the system is a complicating factor); (2) possible changes in the system's structure and the relationships among institutions; (3) the certification of teachers; and (4) the structure and content of courses.

Teacher Education for the Future: The Role of Research at the Far West Laboratory for Educational Research and Development (Hering, William M., Far West Laboratory for Educational Research and Development, San Francisco, California)

Priorities of FWLERD include: (1) conducting research on teaching and teacher education; (2) developing quality teacher education programs; and (3) providing technical assistance in support of quality teacher education. Much recent research has been conducted on important components of effective instruction, especially at the elementary school level. However, knowledge produced by educational researchers is of limited use if it does not directly affect the direction and quality of teacher education. The Laboratory is exploring how this knowledge can be included in the educational experiences of inservice and preservice teachers. Practitioners in schools and institutions of higher education are working in collaboration with Laboratory staff to investigate their own teacher education activities. At the elementary school level, an investigation is underway of how programs can be revised to reflect knowledge of effective instruction. After an extensive review of current knowledge, research designs were developed for each of three sites. These designs engage teacher educators and practitioners in the investigation and revision of current programs. At the secondary level, mathematics teachers and university professors have observed classrooms to discern characteristics of effective mathematics instruction. They are expanding their efforts to design and implement revised programs for the beginning and continuing education of teachers. Details of these programs and related Laboratory activities are provided.

Teacher Education and UNESCO Priorities (Johnston, David, College of Preceptors, London)

ICET is involved in many ways with UNESCO, and many students, teachers, and teacher educators are aware of and involved with UNESCO. UNESCO's contribution to international understanding includes the creation of seminars, associated schools, projects, recommendations, and publications. Two UNESCO publications, "The UNESCO Courier" and "UNESCO News," disseminate information about UNESCO programs, policies, and activities as well as information about associated organizations. One more form of information dissemination can be carried out, collectively and individually: writing to the Chairman of the Nongovernmental Organizations Standing Committee (UNESCO, 7 Place de Fontenoy, 75700 Paris), whose committee wishes to know how information is publicized on UNESCO, on implementation of its programs, and on the use and distribution of the organization's publications, at the international level as well as at regional and national levels.

Perceptions of International Educational Researchers Regarding Cross-National Evaluation and Implications for Teacher Education in the 21st Century (Kunkel, Richard C., University of Nevada, Las Vegas, and Tucker, Susan, Clark County School District, Nevada)

The reporters, who have had extensive involvement with AID world reform programs, the American Educational Research Association, and international education agencies, gathered data on perceptions of 26 American educational researchers on the effect of research and evaluation on education and on teacher training. This presentation discusses the impact of cross-national evaluation on: (1) teacher education; (2) conditions of effective reform for teacher education; and (3) difficulties encountered in the process of educational evaluation and its relationship to teacher education. These areas are addressed from the perceptions of the educational researchers, regarding international financial interests, testing corporations, and higher education. Perceptions of representatives of developing nations are also discussed. Implications for teacher education are presented, and future links for teacher education in the twenty-first century are addressed.

The Individual, Education, and the Future (Maley, Donald, University of Maryland, College Park) SP 022 872 (ED Number not yet assigned)

The nature and the needs of the individual in the late twentieth and twenty-first centuries will be influenced by a number of interrelated factors: environmental change, a changing society, population growth, and the individual. Each of these factors will play a prominent role in shaping future educational directions. Decision-making must be based on a holistic frame of reference. Because the goal of education is individual fulfillment, curriculum development decisions must be based on an awareness of and an interaction with the many environmental and social factors that bear upon the individual. Background data for education and educational practices indicate that the following should be considered in decision making: (1) a need to think in terms of alternatives; (2) appreciation of the importance of each individual's learning to learn; (3) increased demand for teaching of science, technology, and supporting subjects; (4) a wider and more effective use of the community; (5) preserving education as a lifelong process; (6) greater concern for the development of the individual and personal fulfillment; and (7) an increased emphasis on the human needs of people caught up in a dynamic, fast-changing society.

Challenges of Latin American Education for the Twenty-first Century (Pajuelo, Maria Marta, Ministry of Education, Peru) ED 232 986

Following an introduction to the educational situation in Latin America in primary, secondary, and higher education, this paper discusses illiteracy, a lack of integration between cultural policies and education, the lack of a real adjustment of education to the needs of the communities, and the need to tie education and the world of work. It is stressed that teachers in Latin America must make governments, public leaders, and the press realize the importance of education in the transformation of society. Recommended is the study of new forms of educational administration to make it more functional and to prevent the suppression of essential communication among teachers, administrators, and students. The importance of preparation for life of Latin American children, the need for communication, and the primacy of educational strategies over political strategies for educational improvement are stressed.

Teacher Education and Spaceship Earth (Raack, Marilyn, and Bixler, Jim, San Francisco State University, California) ED 233 004

The analogy of "Spaceship Earth" suggests a teacher education program that is futures-oriented and that can be effective in changing and maintaining desirable attitudes and behavior, particularly regarding global issues and processes. Rationales are provided for a global education content base for teacher education, as well as for analyses of values, related actions, and their consequences as a basis for commitments to action. Principles underlying the development of such a program are presented with references to research-based support. A description is given of an elementary teacher education program along these lines, carried out by the authors in cooperation with schools in the San Francisco Unified School District, California, between 1980 and 1982. The authors discuss limitations and advantages of the program as it was carried out. Necessary changes for future implementation of such programs, as well as related research questions needing investigation, are suggested.

Improvement of Science and Mathematics Education (Turina, Pedro, Department of Educational Affairs, OAS, Washington, D.C.)

During the last 12 years, the Organization of American States (OAS) has provided support to activities in the improvement of science and mathematics education. Activities related to this area have been devoted towards improvement of human resources in the Member States so that new approaches and materials can be utilized by teachers at all levels of education. In spite of these efforts, educational systems have not reached a level of accomplishment that guarantees minimum science competency for students. Efforts must be devoted toward the inclusion of science and mathematics as indispensible components of education. Three main aspects that must be considered for future activities are: (1) curriculum development; (2) improvement of human resources; and (3) development of teaching materials.

The Redesign of Teacher Education for the Twenty-first Century
(Signon-Baldo, Laura, Ministry of Public Instruction, Rome, Italy)

The most important function for education to fulfill is that of helping us to recognize the world we actually live in and simultaneously of helping us to master concepts that will increase our ability to cope with it. The concept of teacher as "instructor" is inadequate to describe the teacher's overall function. The teacher is a facilitator of learning and may need to perform several roles: (1) general overseer of student learning; (2) classroom manager; (3) instructor; and (4) co-communicator with students. Goals, curriculum, and evaluation aspects of teaching must be tightly interrelated to be effective. To facilitate this, the teacher may: (1) define objectives; (2) define aims and content to be learned; (3) choose methods and techniques; (4) monitor the learning process; and (5) evaluate and give feedback. Teachers reach their full effectiveness when their preparation is campus-based and field-oriented. The teacher's role is not only to cope with classroom teaching, but also to participate in a collaborative effort, involving the university, the teaching profession, and the school system.

SECTION IV

Meeting Basic Human Needs

Education for Meeting Basic Needs

M. Peter McPherson, Administrator
U.S. Agency for International Development

The 30th ICET World Assembly is a unique opportunity for me to talk about the education and training activities in human resource developmment being conducted by the U.S. Agency for International Development (AID).

While the physical world is shrinking due to advances in communication and transportation, the individual's world is expanding. No longer is the average Asian, African, or American unaware of what is happening in the other's world. There is greater interaction among nations and people than ever before, and there is greater interdependence. Significant social and economic problems occurring in one part of the globe cannot remain isolated from the rest of the world, be it droughts in Somalia or financial instability in Brazil or Ghana. If there is a recession, it is a global recession.

Global interdependence is becoming recognized in virtually all spheres--finance, commerce, trade, and security. Japanese, French, and German prosperities are totally dependent upon their economic interplay with other nations. The United States has become 100 percent dependent upon lesser developed countries for rubber, 96 percent for tin, 86 percent for bauxite, and 75 percent for cobalt.

The point is obvious. In addition to our traditional humanitarian concerns for helping those less fortunate, we have a vested self-interest in stimulating individual human development as a means of promoting economic growth in Third World countries. Only in this way will the total world continue to grow.

Permanent, sustained economic growth cannot exist without development of the human resource. I believe that our respective organizations agree on this and the following:

- We both believe in developing the full potential of the individual.

- We are both dedicated to the principle of helping people help themselves.

- We both understand that a nation's true development is dependent on an educated, trained populace.

- We both realize that, in strengthening the Third World, we are strengthening ourselves.

When a small group of educators met in 1953 in Oxford, England, little did they know the impact they would have. ICET has been extremely successful in attaining its objectives. For the last 20 years, ICET, under Dr. Klassen's leadership, has contributed significantly to one of the most comprehensive teaching approaches I know.

You can be proud that ICET's administrative internship program has provided many visiting educators the opportunity to participate in the daily responsibilities of an American counterpart. This training device is the ideal means for senior professionals to carry on a continuing knowledge exchange. The resulting dialogue is among colleagues who have shared problems and solutions. The positive impact on both counterparts is probably much more profound than is readily evident. It is a major accomplishment that four of ICET's current Board members are alumni of ICET's program, which began only a generation ago.

AID's major objective is helping people in the Third World gain knowledge and resources to build the strong economic, political and social institutions to achieve a better life. For example, to teach people to increase their rice production will have a more far-reaching effect than to simply give them rice. Helping people help themselves has been the goal of AID and all of its predecessor organizations beginning with the Marshall Plan, which played a significant role in shaping the world.

In the 1970s, AID's focus changed to more direct transfers of capital with an emphasis on the world's poorest of the poor. However, transfer of capital alone cannot ignite the engine of development. Yes, it is important to expand health, nutrition, family planning, and educational opportunities for the poor, but it is equally important to train these people to carry on the programs for themselves.

This self-help emphasis is the top priority of the Reagan Administration. It is highlighted by special attention to four tenets, which I believe are keys to development: Sound host country economic and social policies are essential to encourage a country's ability to help itself; The transfer of technology to developing nations is essential to enable them to produce and manage their resources; Since technology transfer is limited by institutional capabilities, the development of a strong institutional base, particularly in educational systems and training organizations, is essential to reduce reliance on donor countries; The encouragement of a strong indigenous private enterprise is essential to long-term development.

The common key to these development essentials is the sufficient numbers of skilled men and women in developing countries. Only through education and training resources are poor nations increasingly able to produce for themselves an educated citizenry and the necessary skilled technicians. The demand for a trained workforce still exceeds the supply in most countries. The level of sophistication required to keep pace with advancing technology continues to rise.

Our highest priority then is building and strengthening host country institutions to meet the pressing demands for a skilled labor force. However, this takes time and the need for trained personnel is immediate. To assist developing nations to meet both their long-range and short-term manpower needs, AID supports two separate but interrelated programs:

- A ten-year effort to increase literacy and strengthen basic education is underway in selected African, Asian, and Latin American countries.

- Efforts are expanding to bring increased numbers of participant trainees to the United States for academic and technical training.

This two-pronged approach will meet the immediate need for highly skilled personnel that is necessary to sustain and expand the rapid growth that has been occurring.

For 30 years, the United States has demonstrated its effectiveness in expanding and improving primary education systems. We have shown--in Nepal, Brazil, Korea, and Jordan--that significant improvements can be made given the proper combination of purpose, effort, resources, and cooperation.

For example, in Nepal, between 1951 and 1975, the United States was the only major donor in education. By providing some $16 million in capital and technical assistance, the number of elementary schools increased from 321 to nearly 9,000 and the number of eligible students enrolled from less than one percent to 59 percent. When the program began, there were few trained local teachers and no teacher training institutions. By 1975, there were 13 teacher training campuses operating under the jurisdiction of Nepal's Institute of Education.

Experiences such as these have convinced us that AID can make major contributions to educational development with the commitment of relatively modest resources. At present, we are making a commitment of $4 million annually over the next 10 years. These funds will improve the elementary education and training systems in five African, one Asian, and one Latin American country. The project will support research planning and analysis of education, and will build in each host country the capacity to undertake these activities on their own.

To meet more immediate needs, the AID Participant Training Program sponsors nearly 8,000 "Participants in Development" annually in the United States to advance their education and improve their skills. About one-half of these students engage in formal academic studies. The others take part in short courses, observational visits, or internships.

Since this program began 30 years ago, nearly a quarter of a million men and women have participated. This training has enabled participants to return to their home countries, where they have become national and international leaders. We are proud to see some of them sitting in this audience today.

Last year, nearly 2,000 masters studies and 650 doctoral programs were supported by AID. They represent the full range of the academic spectrum--agriculture and natural resources, industry and mining, education and public administration, health and sanitation. Also represented are community development, social welfare, labor affairs, and transportation.

The U.S. private sector has played its part, too. For example, recently a trainee in food processing was assigned to the General Foods Company in White Plains, New York. He received hands-on training in quality control of produce, freezer operation, and materials handling, and an orientation to the overall operation of the food processing plant. In another case, several East Coast transportation companies arranged for an observational training program for five urban planners. The expense of the program to study urban and mass transit was paid by the U.S. companies. AID funded the per diem and international travel.

Just as private corporations have made financial contributions in support of development, so have educational institutions. Many American universities provide tuition waivers and scholarship grants, which is a trend we hope will continue.

As mentioned, AID's purpose in training participants is closely linked to meeting shortages in the skilled labor force, which inhibit development. We believe that this is an appropriate role for us. In addition, we believe that host country facilities, or those of nearby regional institutions, should be used to the greatest extent possible in carrying out this training. There are three reasons for this: (1) the costs are generally lower; (2) these institutions are more attuned to prevailing conditions; and, (3) by investing in these local/regional institutions we increase their capacity in a way that will have the continuing impact we seek.

Still, sometimes it is more appropriate to train participants in the United States. When we do, one result is a strengthening of the understanding between ourselves and our guests. They get to know our communities and people, the dynamics of our society, and our cultural and social diversity. It helps our guests to understand self-help, volunteerism, free enterprise, and other

American ways and concepts. And, we are able to learn from them and share their experience and knowledge.

Two additional trends are important. Increasingly, participants arrive for graduate rather than baccalaureate education. Also, the short courses and observational visits selected are increasingly more technical. Both trends reflect the growth in the capabilities of both host country and regional educational institutions.

In closing, I would like to say that the conference theme, "Education to Meet Basic Human Needs," is a critical theme in the world today. We know that access to education, the opportunity to learn to read, to write, to develop more fully one's understanding of the world, is vital to international progress. Continuing cooperative effort will make educational opportunity for everyone a reality.

Democratization, Educational Change, and Training of Teachers In Latin America--The Role of OAS

Raul Allard, Director
Department of Educational Affairs,
Organization of American States

Democratization, educational change, and the improvement of the training of teachers are closely related. The expansion of educational opportunities is achieved when good education is offered to the majority of the people and simultaneously the overall objectives of education are related to social needs, democratization, and participation by all. The role of teachers in this process is paramount, as are the values and attitudes that teachers convey to their students. Literally dozens of educational reforms in Latin America could not achieve their objectives because of a failure to involve teachers in the planning or because of the improper consideration of the training of teachers in the new methodologies, curricula, or objectives necessary in the reform.

The same problems happen with efforts of expansion and democratization of the school system. The realities of the marginal urban areas of an enormous Latin American metropolis require not only new school buildings and facilities, but also new curricula adapted to each specific environment and teachers able to teach creatively. Again we find the teacher in the front row of change, and we also find the need for teacher training either in institutions of higher education or on the job. In this perspective the teacher is an agent of change and education becomes a tool for democratization. Both aspects have to be analyzed in the broader framework of educational development in Latin America during the last two decades.

Education and Development

Since the end of World War II, Latin America has undergone economic growth and educational expansion, but the impoverished living conditions of most people have not been overcome. The regional development strategy, which originated in the 1950s and was expanded in the 1960s, was intended to establish advanced economic sectors and geographic areas, particularly regarding industrial productivity, but also including science, administration, and communication. The planners were convinced that these advanced areas would stimulate the more traditional sectors.

In the beginning, no importance was attached to either educational or social investments under this strategy. Later, however, education was conceived as an economic growth factor, as an investment that would increase the growth rate. The sector lost its image as an expense limiting society's investment capacity and came to be seen as an investment in the human resources that are basic in creating and accelerating development. A number of government declarations, such as those that gave rise to the Alliance for Progress and the Declaration of the Presidents of America in 1967, stressed giving priority to education.

By 1969, limits had been encountered with respect both to the possibility of modernization by import substitution and the view that investment in education resulted almost automatically in economic growth. Education policy of the decade had tended toward improving the internal efficiency of the system and improving external efficiency with respect to accelerated economic development, expanded enrollment at various levels, and modernized curricular reform. On the basis of the development strategy, an unprecedented quantitative expansion of the formal education system was achieved along with renewal in various aspects; but the strategy neither attained universal basic education nor improved the low educational level of the adult population remaining outside the system. Moreover, curricular, structural, and administrative factors continued to have a negative impact on educational performance, for example, failure to achieve closer adaptation of the educational system to the work world and employment possibilities.

Trends Toward Improvement and Democratization

Experience during the 1970s gave rise to a revision and expansion of the development concept. Being stressed is the integral nature of development and people; people are the developers. Hence, development cannot be measured only in the goods or resources available to the community; development also must be assessed in terms of the quality of the people who produce and use it. This approach was taken during a 1979 UNESCO meeting of the Latin American and Carribean Ministers of Education, who defined a developed country as one whose population is "informed, educated, efficient, productive, responsible, and united."

In 1980 the ministers met under the aegis of the Inter-American Council for Education, Science, and Culture of the OAS (CIECC is the Spanish acronym) to discuss the prospects for the development of education in the '80s. The group stressed that the "process of educational development should be defined with a broad concept of integrated, harmonious, and independent development whose central theme is the enhancement of the various dimensions of the individual and the satisfaction of his basic needs, with special emphasis on the promotion of the disadvantaged social sectors."

In this same declaration the ministers set other principles and goals pertinent to education:

- That the concept of development implies a commitment to social justice that will make it possible to overcome inequalities.

- That the active participation of the whole community, including the family, local groups, representative institutions, and grass roots organizations, in the formulation of educational policies is important. This goal reaffirms that education is a responsibility of the whole nation.

- That education is a basic right of the individual.

- That the member states through their educational systems should redouble their efforts to bring about a real democratization of education as regards coverage, expansion of educational opportunities, and substantial increase in the quality of education.

- That this new challenge calls for an in-depth examination of the meaning and content of education, and that students be educated to understand their world and to participate in it consciously, critically, and creatively thereby making possible the development of solidarity and humanism in social relations.

To achieve these principles the ministers stated the need of adopting policies to pursue among otner objectives the following:

- To eradicate illiteracy before the end of this century and to devise strategies for covering the marginal sectors of the population whose level of schooling is unsatisfactory.

- To ensure the provision of basic education to the entire population-- children, youth, and adults--as a foundation for the democratization of education.

- To eliminate the disparities between educational opportunities in urban areas and those in rural areas by assigning priority to overcoming the deficiencies in rural education, such as incomplete schooling, lack of infrastructure, untrained teachers, and lower quality of education.

- To encourage the simultaneous use of formal and nonformal mechanisms and to test and use teaching methods that do not involve large investments in physical infrastructure.

- To introduce an improved curriculum that is adaptable to the varying cultural conditions of each country, region, or locality; that has more relevant content; that incorporates scientific, technological, ecological, and cultural variables at all levels; and that uses participatory methods, which stimulate thinking, a critical mentality, creativity, and the integration of theory and practice.

- To introduce changes into training and retraining courses for teachers that will enable them to exercise a modern, more active and stimulating role in the teaching-learning process; and to adopt policies that will lend dignity to the teaching profession by providing, inter alia, adequate salaries. In this same aspect CIECC Resolution 582/82, adopted by the Ministers of Education in their last meeting in October 1982, stressed the importance of promoting international programs (a) to improve teacher training and to ensure continued training at all levels and in all types of educational systems by expanding opportunities for advanced training of working teachers; (b) to implement tele-education training programs that will benefit teachers in rural and remote areas or that will constitute a normal activity for all teachers; and (c) to encourage proper educational and instructional training for university professors.

Transforming Goals into Reality

The general policies and goals are to be applied to the very broad, diverse realities of Latin America and the Caribbean, whose countries differ greatly in education, needs, achievements, and deficits.

Latin America and the Caribbean averaged an annual population growth rate in the '60s and the '70s of 2.8 percent, the highest in the world. This rate was concentrated in five countries, which represents 69.9 percent of the region's total population: Brazil, Colombia, Mexico, Peru, and Venezuela, which grew at 3.1 percent. In absolute figures, the growth rate meant increasing from a population of 211 million in 1960 to 366 million in 1980, and a projected 600 million for the year 2000.

The process of urbanization also presents numerous challenges and problems to the educational and social sectors. At the end of the century, Latin America will have 475 million people living in cities, which compares with 220 million in 1979. Even in countries with strong rural traditions, such as Jamaica, Ecuador, and the Dominican Republic, the urbanization trend is strong. At the same time, in the rural areas the social and educational indicators show more serious deficits in almost every respect than the urban areas.

Enrollment in the educational system increased in every level. Primary enrollment rose from 27 million in 1960 to 60 million in 1977; secondary enrollment from 2.8 to 14.7 million; and higher education from 0.5 to 4.5 million. According to projections for 2000, the region will face creating 100 million new jobs and educating a growing population that is conscious of people's rights to participate fully in the social processes.

The process of democratizing education must permeate all levels of the education system. This article stresses the two aspects of education that affect more the majorities of the population: basic education and adult literacy.

Improvement of Basic Education

Expansion and renewal of basic education are important in the process of educational change to meet the needs of the population, 6-to-11-year-olds which constitutes the theoretical demand for basic education. From 1960 to 1976, as a result of substantial effort by the countries of the region, school enrollment for this age group increased from 57 to 78 percent. In that same period, primary education expanded at a 4.1 percent rate, which, while significant, is less than the growth rate for previous periods. Eleven million school-age children remained outside the school system between 1970 and 1977.

Future demand for basic education will expand by two factors: the increase in this age group, which is anticipated to grow from 51 million in 1975 to 90 million in 2000; and the large population groups over 11 years old (adolescents and young adults) who also must be educated at this level.

A number of studies show a general uptrend in Latin American countries with respect to enrollment of school-age children. For example, in 1960, ten countries had enrollment rates under 50 percent: Bolivia, Brazil, Colombia, El Salvador, Honduras, Mexico, Nicaragua, Peru, Guatemala, and Haiti. In 1970, one country had a school enrollment rate under 40 per cent, and three countires had a rate ranging from 50 to 40 percent, while in the other countries, rates had risen considerably.

Figures are not available for 1980, but projections show that the improvement should have continued in Mexico, Panama, Costa Rica, Ecuador, Peru, Dominican Republic, Bolivia, Brazil, Colombia, and Nicaragua. At the upper end, five countries had rates higher than 90 percent in 1970. This accelerated evolution, which constitutes the global demand for primary education, will mean a strong pressure for greater financial, material, and--more so-- human resources.

A number of countries in the region have undertaken change or reform programs in basic education. Some are comprehensive and affect even the goals of the system, while others are more specific and relate to particular aspects, such as increasing the number of years of basic education, introducing educational technology, establishing vocational guideline policies, and changing the teacher training system. International cooperative mechanisms have helped with the introduction of changes and innovations, especially in training the specialists required to start the change process.

Despite the progress made, the great challenge for the next decade is to review the contents of programs that still maintain their rigidity and lack of adaptation to educational objectives, and the specific needs of the populations involved.

Any qualitative change must have a counterpart in improvements in the teaching staff, and statistics indicate improvement. The total number of teachers at various levels rose from 1.2 million in 1960 to 3.2 million in 1975. In 1960, twelve countries in the region had 30 percent or more primary teachers without degrees; only six countries were in that position by the following decade. Starting in the 1960s was a trend to train teachers--even elementary teachers--in the universities, but currently a number of countries are revising this approach and the trend is changing to stress the use of a variety of institutions to train teachers (universities, teacher colleges, and institutes). A recent study recommends establishing national teacher training systems, which would be aimed at coordinating three approaches: (a) actual educational training, which is given in the above-mentioned institutions; (b) basic and advanced training of inservice teachers by both training institutions and specialized centers under the Ministries of Education, and also by training centers and self-training at the local level; and (c) follow-up to detect training gaps and new requirements, thereby strengthening the programs being offered.

Adult Literacy and Democratization

Illiteracy in the population over 15 years old is a particularly acute problem for Latin America. Although there is a continuous reduction in relative or percentage figures, the absolute number of adult illiterates remains very high, and this has human, social, and economic impact. For 1980, 43 million illiterates were calculated (20 percent of the population over 15 years of age), and 36 million are projected for 2000 (10 percent of the projected population over 15 years of age) unless strong measures are taken.

Specific literacy training plans may have different purposes or reasons behind them such as the following. These are not necessarily exclusive.

- Literacy is part of the attainment of a minimum basic education of each individual and is the foundation for any educational system or later training.

- Literacy training--and the more advanced education that this permits-- is part of a national process of integration, of the attainment of higher efficiency among citizens in performing civil responsibilities and social functions, and of higher technological efficiency.

- Literacy training is a component of processes aimed at eliminating structural inequalities generated by styles of development that, by changing life patterns, discourage more or less large sectors of the population whose knowledge and learning systems are inadequate for new emerging forms of production and communication.

All these motivators may have relevance, but their basic point is that the framework for literacy training must be comprehensive development of the individual as part of the specific social, historical, and geographic situation in which he lives. No doubt, this process may have an important impact on a democratization process.

The last 30 years have seen a remarkable interest in adult education in Latin America and the Caribbean. This is due both to the interest shown by the adult poor in improving his or her condition and to a better conceptualization of the whole problem. Adult education has benefited from a renewed process of community development and the interest shown by the marginal sectors in improving their organization and participation in the social processes. New trends and methods in adult education have emerged in Latin America that stress the importance of the adult in his or her learning and that pose new challenges for teachers in adult education.

Hemispheric Cooperation: Role of OAS

Article 45 of the OAS Charter directs that the Member States give primary importance within their development plans to the encouragement of education, science, and culture in a manner oriented toward the overall improvement of the individual and as a foundation for democracy, social justice, and progress.

In 1968 in Venezuela, the OAS Member States established PREDE, the Regional Program of Educational Development that has represented a multilateral, systematic attempt by the countries to cooperate and help each other. PREDE was created to foster educational innovation and change and combines elements of project financing; creation of capacity in the countries to confront their requirements through institutional development; multinational coordinated action; policy guidelines through biannual programming; supplementary cooperation through stable teams of specialists; and a variety of inputs that include national and foreign experts, equipment, mutual assistance missions, training, and intern programs among the countries and participating institutions.

The OAS-PREDE currently includes a network of exchange and coordination through national institutions and multinational centers. Projects in the first decade of PREDE tended to reorganize basic educational curricula, train personnel in educational technology, train specialists in science teaching, establish educational planning units and train planners and administrators, and improve vocational technical education and adult education.

Special projects have included those aimed at integrated development in border and rural areas, and better coordination between education and work. Starting in 1978, the program's activities have been directed at opening up educational opportunities for the most disadvantaged sectors, strengthening educational agents with greater innovative potential, and promoting educational change in important areas such as linkage of education, work, and productivity.

The program encompasses the ideas of educational change and democratization through specific actions of mutual technical assistance. In the case of training of teachers, the program has focused its attention in training specialists in different fields to create the capacity in each country to improve teacher training and inservice teacher training. The following briefly describes three examples.

First, the Multinational Project on Educational Technology has focused on developing human resources through various concentrations of professional training, which include instructional design procedures, evaluation of educational materials, production of materials in education, radio, and motion pictures, selection of the appropriate media for educational purposes, and more. These training activities have directly included more than 300 specialists and the follow-up information on these specialists has demonstrated a positive multiplier effect. The project also has offered short-term training to about 6,000 teachers through a special multimedia package in educational technology and instructional design. Other projects related to this field have provided specific training in establishing and operating distance education systems.

Second, the Multinational Project on Integrated Adult Education has developed two main categories for its activities in 15 countries. The project was designed to provide refresher training for adult education teaching personnel on a massive scale through regular or short courses, laboratory work, and seminars. Almost 7,000 teachers have been trained in this field. The project also was aimed at carrying out specific activities among the adult working population in the member states; operational units, multipurpose centers and other functional structures were set up where people worked. In 1982, the project sponsored a Latin American seminar at the Catholic University of Santiago, Chile, to discuss the university curricula for teacher training with specialization in adult education.

Third, the Multinational Project on Systems of Training of Teachers (PROMULCAD is the Spanish acronym) began in 1978 with the participation of Chile, Peru, and Colombia through their respective national centers dedicated to inservice teacher training (Centro de Perfeccionamiento in Lo Barrenechea, Santiago, Chile; INIDE in Peru; and the National Directorate on Training and Curriculum of Colombia.) In 1982-83, eight countries are participating: Colombia, Chile, Peru, Panama, Haiti, Honduras, Mexico, and the Dominican Republic. This project assumes that if the professional level of teachers is improved, then the quality in education will be directly affected. The strategy of the project was, first, to help the countries establish, as pilot experiences, systems of training teachers that are designed according to local conditions and that could be applied later on a national basis; and second, to produce among the participating countries a transfer of knowledge and strategies for inservice training with the purpose of systematizing a valid technology for Latin America. This transfer of experiences occurs via a bulletin and publications and also during an annual coordinating meeting of the teams involved in the Project. The last meeting took place in Colombia in February 1983;

ten countries presented experiences on innovations in the field of inservice teacher training.

Democratization, Educational Change, and Training of Teachers

Latin America faces many challenges for the future. Among these are the following four.

First, school systems were organized (administration and curriculum) in the 19th century in response to the sociopolitical requirements of the times, for social groups who needed certain skills for academic success (discipline for study and use of time, skill in reading, high value on cultural goods as factors of prestige, possibility of assistance in school from parents, and so forth). However, with expanded coverage and under the same characteristics and demands, the schools have been forced to work with a population that has lacked the same skills and possibilities because of economic and cultural conditions. Under these conditions, the development of mass education in the region in recent decades has necessitated that the schools change directions and adapt to the needs of the user population. One challenge the school system faces is lowering the dropout rate, especially during the first few years of school. This phenomenon directly relates to illiteracy unless other educational opportunities are promoted for those who drop out of school early. Recent studies show that internal factors are important in this matter.

Second, democratization in society and the educational sector shall be best served by a concerted, multinational action aimed at supporting the individual countries' efforts to provide minimum basic education to their entire populations--children, youngsters, and adults. Basic education would give the people the necessary tools to become part of the process of comprehensive development. In this context literacy instruction is an integral part of a permanent education process. It should lay the foundation fostering every individual's capacity of comprehension and full expression in his and her different social roles. It is also understood that, in the present process of transforming our societies, the basic minimum is expanding and becoming more complex.

Third, the democratization of education and its contribution to overall development require that educational content and curricula match the interests and social goals of the students and their communities, and the general objectives of national and regional development.

Finally, these processes require adequate changes in the role of teachers and in the curricula of teacher training. Teachers have to be trained in the fundamental aspects of the relationship between education and global development and in the appropriate attitudes and values to achieve this goal. Teacher training has also to emphasize moral values such as respect for the dignity and fundamental rights of individuals, solidarity, respect for the national environment, etc. New methodologies, such as distance education and appropriate education and technology, may be successfully applied to teacher training in a framework of permanent education. Some basic research capability will be necessary for teachers to enable them to participate in research concerning educational quality and the prevention of students' failure.

Permanent Role of Teachers

Liberator Simon Bolivar wrote that the school principal is a person full of kindness and love of country who, sacrificing rest and liberty, is dedicated to the generous exercise of creating for the state citizens who would defend, glorify, sanctify, and beautify it. The educator must be "not only wise, but also a man outstanding for his own education, for the parity of his culture, for the naturalness of his manners, jovial, accessible, amenable, frank, and in summary, one in whom we find much to imitate and little to correct."

Especially relevant to what has been said is the selection of extracts which the Venezuelan humanist Andres Bello published and commented in The Araucano, Santiago de Chile, in the year 1843, under the title of "Popular Education," a text that gave the master teacher the opportunity to repeat some of the [illegible]nciples which he maintained through all his life; and whose [illegible]y simplicity turns to be illustrative of how Bello always fought, with example and through his writing, to convince his contemporaries of some elemental but not always practiced truths related to teaching.

According to Bello, the first thing that is important in a popular education system is that it be intelligible, which is his reason for recommending that the educational function never exceeds the limits of knowledge that a child or young person was able to understand and learn. Bello advises, to the same end, that education which uses only the memory of students can abuse the quantity and quality of knowledge that is transmitted. Because of that, bound by this more to the capacity for memorizing than by mere assimilation and comprehension on the part of the students, runs the almost certain risk of their being easily lost only because of the passage of time. Therefore, Bello wrote, all teaching should be gradual, even paced, and should avoid haste and simplicity, so frequently wanted by others--because they consider that education can be reduced to a frenetic career to fill to overflowing the still untouched heads of young people, and forget that true knowledge for each individual is not composed of the amount of ideas retained in their minds, but by the number and variety of relationships that individuals are capable of making between these ideas.

In devising new curricula for training of teachers in a changing and more democratic world, we can draw not only from the new school of thoughts and methodologies, but also, in Latin America, from our old founders and masters.

Democratization and Education for Basic Human Needs
Summary of Concurrent Session Abstracts

Romeo Flores Caballero,
Secretary of Education and Culture
Monterrey, Nuevo Leon, Mexico

Education in its broadest sense is a social act that forms a person's conscience and capacity in his or her action and struggle to change the social, economic, and cultural milieux. The educational system erected in every nation constitutes the fundamental means to channel the social forces and orient them towards the attainment of determined values.

The abstracts that follow are part of the impetus that researchers and centers of education show to respond effectively to important educational and cultural problems that currently aid the development of human communication and community living. Although the documents have basic human needs and the democratization of teaching as their frame of reference, it is noteworthy that the specific topics, the way of approaching the studies, the way the models are formed, the implementation of programs, and the conclusions and recommendations purported by the authors make of these a collection rich in information and concepts that respond to specific social developmental conditions in the world.

In sum, these works comprise a variety of topics that can be subdivided: (1) the adequacy of educational policies to national development, (2) the use of technological advances in national development, and (3) the implementation of educational programs directed toward specific segments of the population.

Douglas Young, from Cape Town University in South Africa, believes that the educational crisis in his country revolves around ideological conflicts generated from imposition of instruction in Afrikaans rather than English. Aftab Kazi, from the University of Pittsburgh, studies how the lack of an educational policy that integrates ethnic values is hampering the development of nationalism in Pakistan. Norwell Harrigan, from the College of the Virgin Islands, describes an analytical tool to study teacher education in small countries. Michel Carbonneau, from the University of Montreal, analyzes reforms to the training program for teachers charged with educating the French-speaking population of Quebec.

Allen Myers and Ragy Mitias, from Ohio University, study efforts in Botswana to obtain educational facilities and to improve the quality of instruction through advanced programs of education for teachers. Nancy Quisenberry, from Southern Illinois University, explains the adjustment made to the program of education for teachers to integrate Malay students. Somwung Pitiyanuwat, from Chulalongkorn University in Thailand, believes that the spirit of human rights and the wish for peace must be incorporated into the educational curriculum at all levels. Sister Christina Trudeau, from Chaminade University of Honolulu, points to the use of natural materials and a series of videotapes to foster environment learning among kndergarten and primary school teachers. Klaus Schulte, of the Center for Applied Linguistics of the Federal Republic of Germany describes findings to enhance communications among people with auditory deficiencies.

Moreover, Maria Martinez, from the Organization of American States, focuses her analysis on how the structured organizations for the caretaking of children are substituting the family and community support of parents and children. Elizabeth Purcell, from the Center for Citizenship Education of Washington, D.C., and Jack Early, from the Combined Insurance Company of America, point to the importance of the principles of positive mental attitude as a resource for civic education and minority adolescents, respectively.

Hans Jellen, from Southern Illinois University, purports that education for the gifted is superficial from which he infers an obligation to design programs that satisfy the needs of this type of student. Nicholas Long, from the Rose School of Washington, D.C., focuses attention on the need to find ways to socialize the aggression of pupils. Louise Pitts Stow, from Worcester State College in Massachusetts, studies the problems that students with disabilities have in higher education. Bert Sharp, from the University of Florida, describes a federal grant program to assist universities to train teachers.

In all, the works are a sample of preoccupation with and search for programs, models, and ideas oriented to the consolidation of national systems and the strengthening of education as a specific field of scientific endeavor. It is noteworthy that these works immerse and familiarize us with a whole series of concepts, data, and guidelines that reflect the conditions in which education exists with the goal of contributing to the development of the humane person within his or her individual and social dimensions.

The Training of French-Canadian Teachers: A Case Study (Carbonneau, Michel, and Diane St. Jacques-Cote, Universite de Montreal, Canada) ED 233 008

The French-speaking population of Quebec constitutes a small, isolated island in the midst of an English-speaking area. The cultural survival of its six to seven million inhabitants depends on the quality of its educational system. In the last few years, however, the balance of this system has been upset, and the University of Montreal, where teachers receive their training, has been vigorously criticized by the teaching profession. Between 1980 and 1981, an evaluation was made of the University's preschool/primary program; both professors and students judged it inadequate, although their reasons were different. Further analysis has led faculty to attempt reforms that accentuate the professional aspect of the program and allow students to work out their own training plan. The pursuit of these objectives is a challenge, because the ways chosen to attain the former may easily interfere with the latter. Under the proposed reform, future teachers will develop skills in a certain number of subjects, and their progress will be systematically evaluated. Individualized specialization profiles will be added to the basic structure of the program. Details of the new program are given.

The Educational Effects of a Positive Mental Attitude on Minority Adolescents (Early, Jack J., Combined Insurance Company of America, Illinois)

A pilot study was conducted for a year and a half with the Argus Community, Inc., a nonprofit private agency in the South Bronx, New York, to test the effectiveness of a Positive Mental Attitude (PMA) Program with troubled minority adolescents who were unable to function well within the traditional school environment. Eighty-eight students participated in the PMA training, and their progress was compared with 193 students who did not receive the training. Comparisons were made of attendance, employment, GEDs, and vocational training or college. Pre- and post-test data revealed positive differences between groups, and participants' self-reports showed significant behavioral and attitudinal changes. The PMA individuals were rated by a clinician as less depressed, higher in self-esteem, less likely to blame themselves for events, and more likely to feel that they could control their lives after receiving the full PMA training. These results, however, must be interpreted cautiously because of the nature of the intervention. This research and pilot project were made possible by a grant from the W. Clement and Jessie V. Stone Foundation.

The Education of Teachers in the Microstate: In Search of Relevance (Harrigan, Norwell, and Pearl Varlack, College of the Virgin Islands) ED 232 989

This paper describes an analytical tool for examining "microstates" in small developing countries and relating a country's characteristics to curriculum needs in teacher education. It applies to countries with limited land area, limited resources, and populations incommensurate with both; the countries are politically independent or internally self-governing and they wish to be recognized as separate, distinct entities and to further their development as fast as possible. The Virgin Islands served as the model's data base, which includes a number of statements widely held to be descriptive of the society and a set of four evolutionary and 21 ecological, socioeconomic, and psycho-cultural constructs that reflect the significance of the descriptive statements. Because each culture has particular needs that education must satisfy, the content and design of teacher education programs should articulate microstate characteristics if they are to serve the society maximally. As derivatives of the stated characteristics, 17 propositions fundamental to curriculum design are put forward.

Miseducation of the Gifted: An Educational Trend and Condition that Exists Worldwide (Jellen, Hans G., Southern Illinois University at Carbondale)

Gifted students are being miseducated; a soundly articulated, differentiated curriculum that addresses the educational and developmental needs of the whole gifted person has dropped out of primary focus in the United States and other countries. Three case studies that use the Holmes' "problem approach" illustrate the point: the United Kingdom and the essentialist tradition; the Union of Soviet Socialist Republics and the polytechnical tradition; and the United States and the pragmatic tradition. Education of the gifted in these nations is often superficial and vocational in nature. Curriculum offerings are nonreflective and nontheoretical and often consist of nothing more than special training that exploits specific aptitudes in a utilitarian fashion or accommodates student interests. To create truly educated gifted individuals, on the basis of what is known about gifted persons and their holistic development, educators must expose them to a differential curriculum that satisfies the canons of intellectual challenge, emotional stability, and moral responsibility. In this context, a curricular model for Differential Education for the Gifted (DEG) is proposed. Differential content and methodology should not only supplement normal school offerings, but also supplant randomly chosen activities that are carried on worldwide under the rubric of "gifted education."

Education, Ethnicity, and Political Socialization (Kazi, Aftab A., University of Pittsburgh, Pennsylvania) ED 232 990

In the context of "relative deprivation," this study examines the relationship between the educational system, the ethnic communities, and political instability in Pakistan. The study assumes that, with socioeconomic and political inequities aside, the educational policies alone lack the representation of indigeneous ethnic values in the national educational system, and thus, have arrested the development of Pakistani nationalism. This research addresses a sociopolitical and educational reordering of Pakistan, and holds that the existing stereotypical images of Pakistan are further damaging the process of national unity and cohesion. The study concludes that only rational approaches of a participative nature, based on "indigeneous ethnic arithmetic" and observation of equal sociopolitical justice, could strengthen the process of national integration. Only then, with a democratic infrastructure, will the educational policies be able to affect positively the process of nation- and state-building.

Understanding Violence in Children and Youth: The Reeducation of Aggressive Pupils (Long, Nicholas, North Community Mental Health Center, The Rose School, Washington, D.C.)

Violence of individuals is an international concern. All countries must find ways of socializing aggression so that this extrinsic force can work for the production and not the destruction of a country. The early identification and treatment (i.e., education) of aggressive pupils is one solution to this problem. This paper discusses how to define emotional disturbance, the parents' role, and the relationship between juvenile delinquency and emotional disturbance. A treatment model called "The Conflict Cycle" is described. The paper draws from a documentary film, "The Anger Within," which presents the views of three experts in the area of emotional disturbances.

Pre-School Education (Martinez, Maria L., Organization of American States, Washington, D.C.)

Psychologists and educators generally agree on the importance of a child's first four or five years in the development of his or her personality. Researchers have asserted that later development of intellectual skills is associated with the need to deal, at the proper time, with development of abilities that may be lost after the appropriate age is passed. Parents need education and assistance before the birth of a child and during preschool years, so that they can provide the child with good physical conditions and adequate stimuli. Familiar systems of family structure and community support for parents and children are disappearing and are being replaced by structured organizations that provide care for infants in various ways. Many children live in extreme poverty, without access to health services, nutritional food, and proper environmental stimuli. These and other socioeconomic factors and growing public awareness of the importance of the child's early years have produced an increase in the demand for preschool care services. The education sector cannot act on its own to solve the problems of children or to improve their environments, but education must shoulder its social responsibility of giving feedback to other social functions, integrating them into its objectives, and preparing people for new roles.

Primary Education Improvement Project in Botswana (Myers, Allen, and Mitias, Ragy G., Ohio University, Athens)

As an emerging democracy, Botswana puts a high priority on education and universal literacy. With an expected 40 percent increase in primary school enrollment between 1980 and 1985, the government has identified increased access, efficiency, and relevance of primary education as major objectives. Botswana is seeking to expand educational facilities and to upgrade the quality of instruction through advanced teacher education programs. The project described provides for the improvement of primary instruction through major institutional assistance. Its activities include preservice and inservice education for teacher training college staff, primary school head teachers, and inspectors. A major objective is to help establish a department of primary education at the University of Botswana to offer undergraduate programs leading to a bachelors degree. It is anticipated that by 1990, all faculty of the then-four-year teacher training colleges will have completed bachelors degrees. Inservice programs are aimed toward training head teachers, deputy head teachers, and senior teachers who are in the primary system or will be entering it during the next five years. A complementary objective is identification of potential primary education faculty to take graduate education degrees in the United States.

The Teacher Education Curriculum for the Twenty-first Century: Peace Education Program (Pitiyanuwat, Somwung, Chulalongkorn University, Thailand) ED 233 005

The spirit of human rights and the desire for peace should be an integral part of the educational curriculum at all levels. However, if teaching for peace and human rights is to be convincing and effective, then teachers must be trained to be motivated and aware of the issues. Faculty of Chulalongkorn University, a leading teacher education institution in Thailand, have conceptualized a program to help make teachers aware of values and ideology they can personally convey in their teaching, and of multiple implications, which contribute to objectivity in their teaching. Peace education is a minor field of study for the bachelors degree in education. Courses include introduction to peace science, peace education, conflict management, and a practicum in peace education. The courses and a model for student teaching and clinical experience in peace education are described.

Center for Citizenship Education Action Course Based on Positive Mental Attitude Principles for Administrators, Teachers and Students (Purcell, Elizabeth, et al., Center for Citizenship Education, Washington., D.C.)

A new CCE (Center for Citizenship Education) Action Course for administrators, teachers, and students is based on positive mental attitude (PMA) principles. It is designed to introduce the PMA philosophy of W. Clement Stone and is to be used in citizenship education. This CCE course is a workshop, with separate components for teachers, administrators, and students. Each component is divided into five sessions: (1) how to develop a positive mental attitude; (2) how to recognize, relate, assimilate, and apply principles; (3) how to take a personal inventory; (4) how to set goals; and (5) how to motivate yourself and others.

Adjusting an American Teacher Education Program to Meet the Needs of Malaysian Students: A Case Study (Quisenberry, Nancy L., Southern Illinois University at Carbondale) ED 232 977

Traditionally, the teacher education program at Southern Illinois University at Carbondale has been organized and maintained to meet state certification requirements. However, the enrollment of Malaysian students in the program created a need to provide special services and to attend to observable cultural differences. Considerable adjustment of previous practices regarding certification of international students was required to assure the success of the Malaysian students. Compounding the problem are two distinct groups of Malaysian students: new graduates of high schools, and experienced teachers who are graduates of two- and three-year Malaysian teacher colleges. The second group required adjustments in evaluation of transcripts and advisement. Center coordinators for field experiences needed preparation for supervising this group. A special assessment of local school systems helped to determine the "tolerance" level for assigning international students there. Various other problems necessitated by language and cultural differences had to be addressed. The discussions and planning required to facilitate the Malaysian students' success in the program are reviewed.

Research on Hearing-Impaired Education in the Federal Republic of Germany--How it Affects Teacher Education (Schulte, Klaus, Pedagogische Hochschule, Heidelberg, Germany)

The presentation sketches 18 years of research by the Research Center for Applied Linguistics for the Rehabilitation of the Disabled at the University of Education, Heidelberg. It demonstrates that the results of several research projects: (1) can improve the communication of the deaf and hard-of-hearing; (2) have enhanced theoretical and practical use of technical equipment, textbooks, and instructional materials for oral and aural communication of hearing impaired children at an early age; (3) have led to didactical considerations, systems of instruction, teaching methods, basic literature, and instructional video films for teachers; (4) have innovated educational, didactical, and methodological strategies for teaching; and (5) have designed multimedia training programs for beginning teachers. Also discussed is how research results will influence and prepare teachers, student teachers, educational personnel, and parents of hearing-impaired children.

Education of the Handicapped: Challenge and Change in Teacher Education (Sharp, Bert L., University of Florida)

In 1975, the United States Congress passed Public Law 94-142, the Education for All Handicapped Children Act, which stated this nation's educational policy for the handicapped. This policy states that every handicapped person is entitled to a free and appropriate education that must be provided in the least restrictive environment, e.g., the mainstream of American schooling. Grants were provided to American colleges and universities to assist them in changing their teacher education programs to more adequately prepare teachers to implement this national policy. This paper reports what was learned from these grant programs during a seven-year period from 1975 to 1982. Topics covered include teacher education curricula for preparing elementary education teachers, secondary education teachers, administrators, and special support personnel; faculty and staff development; and the process and principles of change.

Handicapped Students in Higher Education--Problems and Progress: A Global Perspective (Stowe, Louise Pitts, Worcester State College, Massachusetts) ED 232 995

Although college campuses are more accessible and more handicapped students are eager to secure a higher education, major problems still exist. In contrast to educationally disadvantaged students, who may suffer from lack of basic skills but can be grouped in similar learning situations, handicapped students' individual disabilities require individual services. What kinds of support services (interpreters, notetakers, tutors, personal-care attendants, or transportation) can colleges provide to accommodate the various types of student disabilities? What are the costs in human terms and in finances? How can more awareness and sensitivity be provided to faculty, staff, and nondisabled students so that all feel like participants in the educational process and none feel threatened? This paper examines what is being done in educational systems in Rumania, Spain, Barbados, and the United States, and the role that educators must play in planning future training programs for teachers.

Environmental Learning for Young Children (Trudeau, Sister Christina, Chaminade University of Honolulu, Hawaii)

Distance and budget constraints make teacher education in Emerging Island Countries difficult. A series of supportive video tapes on environmental learning is an alternate training method for preschool and primary school teachers. Such programs focus on sensorial education through use of natural materials found in the surrounding environment. These materials, demonstrated and explained on VHS and BETA system tapes, enable schools and churches to conduct on-site, teacher-aide training sessions. The tapes can be shown to parents, administrators, school sponsors, and government agencies. Curriculum content focuses on the child's profound sense of wonder and respect for God's world. By integrating cultural studies and natural science, this approach to learning encourages exploration, trial, and discovery in a prepared environment that illustrates natural order and beauty. We assist the child to become self-sufficient, to respect tradition with intelligence and understanding, and to be ready to live a productive life in a changing world.

Language, Medium, Ideology, and Education in South Africa Following the Soweto Riots of 1976: Implications for Education Policy and Teacher Education in South Africa (Young, Douglas Neill, University of Cape Town, South Africa)

Since the 1976 Soweto riots, education in South Africa has been influenced by political considerations flowing from the inequalities in education against which the Blacks protested. A major issue in the riots was the language of instruction in Black schools. The enforcement of Afrikaans as a medium of study for certain subjects led to massive protests and a backdown by the government, so that now English is widely accepted as the sole medium of instruction in primary, secondary, and tertiary education. Only seven percent of the 25 million people in South Africa have English as their mother tongue, but 90 percent need English as a lingua franca. This has major implications for language education policy. The government commission on provision of education in South Africa (the De Lange Commission) recommended fundamental changes in education. Among the issues were language teaching and language medium, given that much teaching of English is done by inadequately trained, nonproficient speakers of English. Much of the crisis in South African education is arguably language-based, given ideological conflicts centering on the Afrikaans-speaking minority-government, which alienates, through apartheid policies, a majority population wishing to use English for education.

SECTION V

Educational Technology: Enhancing Quality and Access

Teacher Education and Technological Literacy

Joost Yff and Michael J. Butler
ERIC Clearinghouse on Teacher Education

The growing impact worldwide of technology and technological development has raised the question of what educators must do to promote technological literacy among themselves and their students. If technological literacy is to receive the attention it needs, it seems that concerted efforts should begin with the training of teachers. Schools and colleges of education, with the responsibility to prepare new teachers and to update today's teachers, are best suited for this role.

Assuming that general technological literacy is important to the survival of democratic systems, to maintaining productivity and the economic health of nations, to enhancing individual employability, and to assuring a reasonable quality of life, how does technological literacy come about? What, if anything, can or should teacher educators do about it? How do activities aimed at technological literacy get incorporated in teacher education curricula and worked into the continuing inservice training of school teachers?

In his discussion of a futures curriculum, Buchen identifies a problem that exists in school-based and higher education faculties--that of a "pervasive technophobia among the humanities and social science faculty, and an embrasive technocracy among the scientific faculty..."(1) Both faculty groups will be required to broaden their views if progress is to be made in establishing a liberally educated, technologically literate population.

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(1) Buchen, Irving H. "Curriculum 2000: Futures Basics." In Needs of Elementary and Secondary Education in the 1980's: A Compendium of Policy Papers, pp.377-99. Washington, D. C.: Ninety-sixth Congress, Second Session. Subcommittee on Elementary, Secondary, and Vocational Education, Committee on Education and Labor, January 1980. ED 195 517

Buchen wonders:

> ... whether or not this century will yet see the convergence of these two cultures. What is clearly needed is the creation of a new category of technological literacy as minimum knowledge required to be a reasonably educated and civilized human being.(2)

Despite the degree to which the attitudes identified by Buchen are operating to the contrary, technology has become a topic of study in some colleges and universities. It is being taught both in science/engineering departments and in humanities divisions. In AGB Reports, Gies writes:

> To the honored list of subjects that make up the traditional liberal arts curriculum--language, literature, history, economics, sociology, mathematics, the physical sciences and the life sciences, art, music, philosophy--a new entry has been added at a growing number of colleges and universities. The new entry, like some of the old ones, comes in a variety of forms, but what it is in one word is technology.(3)

That science and humanities faculties in higher education have begun to consider technological literacy as an important requirement of a liberal education is encouraging. Also, that technology has become identified with the humanities as well as the sciences indicates recognition that developing technological literacy will require the attention of experts from a variety of disciplines.

Because technological literacy is an integral part of a liberal education, it also becomes an integral part of teacher education. However, incorporating technological literacy in preservice teacher education programs is complicated by the problem of defining just who "teacher educators" are. Teacher educator can mean anyone in a school, college or university who has a role in instructing future and working teachers.

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(2) Ibid., pp.387-88

(3) Gies, Joseph C. "Technology: A New Liberal Art?" AGB Reports 24, 1 (January/February 1982):17-20.

Yet, a large segment of higher education faculties hold little, if any, allegiance, interest, or identity with teacher education. College and university faculty who are engaged in the liberal education and content specialty portions of a future teacher's undergraduate program do not think of teacher education or the future direction of schools as their priorities. This means that much needed expertise found in university liberal arts disciplines will not simply or naturally fall into line with schools and colleges of education to help work toward the goal of technological literacy.

In addition, we must take into account how high a priority technological literacy is among education faculty. This group deals with the mechanics and substance of pedagogical training. These teacher educators also must contend with the ways in which those elements are improved, controlled, and otherwise affected by various processes, agencies, and organizations. Among recent analyses of primary issues in teacher education in the U.S., technological literacy did not rank high on the agenda when compared with other, more immediate and pressing concerns.(4)

Finally, a trend to overemphasize *computer* literacy complicates the growth of technological literacy among teacher educators and in the curricula of colleges of education. Although the increase in the availabiltiy and use of small computers supports the need for computer literacy and may be the most visible aspect of current technological development, we should not rely solely on computer and information technology to improve education. However important a dimension of general technological literacy that computer literacy may be, it is not enough, given the broader scope of technological literacy.

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(4) Andrews, Theodore E. *Current Issues in Teacher Education: A Northeast Perspective*. Chelmsford, Mass.: Northeast Regional Exchange, Inc., 1982.

Fox, G. Thomas, Jr. *Challenging How Teachers Are Educated: A Source for Dialogue and Action*. Washington, D. C.: American Association of Colleges for Teacher Education and the ERIC Clearinghouse on Teacher Education, 1983. ED 228 160

Imig, David G. "An Examination of the Teacher Education Scope: An Overview of the Structure and Form of Teacher Education." Paper presented at the Airlee House Conference on Teacher Education and Special Education, 10-11 September 1982, Washington, D. C. ED 225 970

While cautioning against overreliance on computers, it is important to note that computers do hold promise for increasing the capability of education to deliver. There is now the opportunity to apply the microprocessor, with its remarkable data and information handling capacity, to the instructional process. However, relying simply and passively on the microprocessor to make things right in education will not in and of itself achieve general technological literacy.

If technological literacy is to become a reality in teacher education, from whence shall come the energy and resources to change current preparation programs?

Considering the urgency for technological literacy, who, if not education faculty, will continue to take the responsibility to see that all the components of the teacher education program are integrated, related, synergized, and upgraded? How much can teacher educators shape those portions--the liberal arts and content specialty components--of the undergraduate curriculum over which they now have the least control? Is it in the liberal arts and content specialty components that we would expect technological literacy to be developed? Or is it appropriate to incorporate technological literacy into the professional component? What steps can teacher educators take to begin making technological literacy an integral part of education? The following points are offered as ways in which the production of technologically literate teachers and teacher educators may begin.

1. Education faculties and staff development personnel must themselves become and remain technologically literate

Until scientific discoveries in genetic engineering can produce "superfaculty" who can easily keep up with rates of change and the knowledge explosion, teacher educators will suffer. They, more than their predecessors, will continue to find their training to be deficient and their research methods outmoded.

The need for lifelong retraining, as pointed out by Stephen White (5) and reiterated in a 1982 report from the U.S. Office of Technology Assessment, the rate of scientific and technological change and the rate of faculty turnover are not synchronous. This suggests that the length of the productive life of educators formerly exceeded the cycle of significant change in knowledge since the total accumulation of knowledge was largely controlled by the new knowledge productivity of faculty. As long as faculty changed and grew faster than knowledge, initial training and ongoing research were sufficient. Now, however, as the rate of accumulating information--especially in scientific and technical fields--increases, faculty's ability to keep pace is falling away.

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(5) White, Stephen. "The New Liberal Arts." In The New Liberal Arts: An Exhange of Views, edited by James D. Koerner, pp. 1-12. New York: Alfred P. Sloan Foundation, 1981.

Technological literacy among teacher educators must be widespread if the profusion of scientific discoveries and technical developments is to become a boon to a growing segment of the world's peoples. Recognizing the school's role in responding to quality-of-life needs, teacher educators must become increasingly alert to the need to develop new preservice teacher education programs. They must remain attuned to their own opportunities for continuing professional development as well as for those of teachers currently employed in schools.

With current conditions of resource scarcity, requests for sabbaticals and other kinds of institutionally financed study for faculty are now getting closer scrutiny. Deans and department heads are expected to show how these plans further the institution's mission and goals. Progress toward technological literacy on the part of faculty will be made when universities recognize that technological literacy for their education faculties is a prerequisite to sound program development and school curriculum improvement.

2. Education faculties must use their internal resources better for both self-development and program development

Schools of education have at their command a number of resources for developing general technological literacy among teachers. These are the faculties of industrial arts, mathematics education, science education, educational technology, and business education. However, in many instances education faculties have considered these areas as relevant only to the training of teachers of these specialties; they have branded industrial arts for industrial arts teachers and mathematics education for mathematics teachers. The potential exists for considerable cooperative effort to respond to the need for research and program development in technological literacy.

3. Education faculties must continue to work within the higher education governance system to enlist the participation of faculties in other fields. They must work toward making technological literacy a requisite of the general undergraduate curriculum

It is essential that teacher educators seek the involvement of faculty outside schools of education to see to it that technological literacy becomes a goal for the undergraduate population at their institutions. Because the general education and content specialty components comprise the largest proportion of the total undergraduate teacher education program, it is here that levels of technological literacy can best be improved. Working in this way will not only promote the education faculty's purpose of furthering technological literacy among student teachers, but will also enrich all liberal education programs.

4. Education faculties and staff development personnel must work through local and national forums for recognition of the need for technological literacy and for definition of the nature of technological literacy

While it is true that when technological literacy becomes a program goal for a particular education faculty it falls under the control of that faculty, the fact cannot be ignored that other forces are also at work. How much a part of the program technological literacy becomes also will depend on consideration and action by extra-institutional bodies, including governing boards and government ministries and departments.

5. Education faculties must help give technological literacy credibility as a field of inquiry

We must recognize that technology and its consequences comprise a field of scholarly study that has stature and credibility equal to other fields in the academic community. By its nature, technological literacy has to be treated as a cross-disciplinary concern. Though the history of science and technical development abounds with examples of how bits and pieces of knowledge from various disciplines came together--either intentionally or by accident--to produce new breakthroughs, technological literacy may be jeopardized simply because there is no natural, organizational "home" for it in the traditional university departmental structure. The way in which knowledge historically has been compartmentalized may severely hamper any cross-disciplinary effort such as the development of technological literacy.

Faculty of education, with their strong legacy of treating knowledge in cross-disciplinary ways, can take the lead in developing technological literacy programs for the schools. Establishing a faculty task force to deal with the issues and to develop a plan of action for faculty consideration is a possible first step. Creating centers or institutes for technological literacy may be an effective way to bring together the interests and expertise of faculty from various departments. It can focus energy on developing courses and programs for faculty, on devising preservice teacher education curricula, and on setting up resources for teachers in the field.

The challenge to teacher education--to create a technologically literate population--is one which, if avoided, may have grave consequences. Systems of education may be doing a moderately effective job of preparing students to function in the world of 1980, but without providing students and teachers the skills to live in the technological world of 2000 and beyond, they will be prepared only to live in a world that is no more.

Educational Technology
Summary of Concurrent Session Abstracts

William F. Grady, College of Education
Louisiana State University, Baton Rouge

ICET'S 30th Anniversary World Assembly brought the latest developments in the use of high technology in education to Washington, D.C. Assembly delegates had the opportunity to view the newest equipment and hardware, talk with and hear from national and international authorities in the field, and to get "hands on" experience with the latest hardware and software programs.

Presentations were concerned with educational technology and its role in providing general education for mass audiences, instruction for students, inservice training and education for teachers, and with overcoming inequality in educational opportunities within countries and across national boundaries.

Several papers presented evidence that students of today in every country are receiving inadequate training in and about educational information technologies. Consensus seems to hold that unless massive retraining and preservice programs are carried out, there can be little improvement in the technological and communication skills of educators for quite some time.

An example of educational technology being used in the United States to teach secondary students about how a society's use of technology affects daily lives and particularly career opportunities was explored in a television series developed by a grant from the National Science Foundation entitled "You, Me, and Technology." The objective of this national series is to assist secondary teachers in teaching students to examine the questions involved in the acceptance and use of modern technology in the various aspects of day-to-day living.

Considerable attention was given to the latest developments in computer technology and its role in instruction, administration, and educational testing. Several presentations were made on computer programs whose contents supported global education and whose objectives are expanded knowledge of other cultures. Computer programs and displays covered most subject content and every grade level from kindergarten through university.

Of particular interest were computer and television programs that are designed to develop inquiry and problem-solving skills. The point was made repeatedly that the educational technologist's job is not to provide answers, but to provide training in areas that will improve the skills of students to generate their own answers to their problems.

In addition to computers and television lessons being used separately, several presentations focused on current projects that are investigating the potential of combined computer and television technology, called interactive video and intelligent videodiscs. This new combination allows the text-generating capabilities of microcomputers to be combined with the realism of audio and video sequences. In some cases random access to the audio and video information is provided. In other applications television programs are produced and broadcast, which alert teachers to the availability of new instructional materials and help them to use the materials effectively in the classroom. A related computerized system was developed to diagnose the instructional needs of individual teachers and prescribe resources for their use.

Educational technology's current role in other countries and developing nations was presented. Emphasis was placed on preservice teacher training in Japan and several Latin American countries. Papers on the use of radio to upgrade primary science education in developing nations pointed out that instructional radio should be used in conjunction with indigenous supplementary materials; the expertise of local educators, students, and community members should be incorporated into project planning; a broad, comprehensive definition of inquiry science should be used in the development of radio lessons; and ecologically valid methods of cross-cultural, cognitive development research should be used in the curriculum development process.

Including educational technology in ICET's World Assembly was a good decision. The papers, speeches, and technological presentations were timely and effective. Assembly delegates had a truly unique opportunity to assess the potential of educational technology and its role in seeking solutions to problems in their own countries.

Peril or Promise of Computer-Based Education: The Conceptual Framework (Barrett, Renee, and McCann, Shirley, Instructional Systems Design and Development, Maryland) SP 022 871 (ED Number not yet assigned)

High technology has begun to dominate many aspects of life. Educators face the difficult challenge of its integration into curriculum and instructional practices. Computer-based instruction (CBI) is becoming increasingly popular. Students are enthusiastic, challenged, and curious about computers; their enthusiasm prevails because CBI nurtures creativity, experiential learning, and independence. However, students' experience with computer technology often surpasses that of their teachers, and educators are reluctant to incorporate CBI into their courses because of limited exposure and knowledge of its uses. This paper demonstrates a conceptual model for critiquing and/or purchasing computer courseware. An evaluation process is presented to answer the following questions: Is the computer the medium you want? What are the differences in traditional versus computer-assisted instruction? Should you purchase or develop courseware? Also included is an analysis of four modes of CBI--simulation, tutorial, gaming, and drill and practice.

Preparing Educators for Information Technologies: A Case Study (Byrne, Michael M., and Greene, Helen, Long Island University, New York)

Today's student is receiving inadequate training in and about the information technologies that will be the major activity of the world for the rest of this century and well into the next. Unless we begin a massive retraining of working educators and training of new ones in this field, the societies of the world can expect little real improvement in the skills of our students for quite some time. Although schools are rapidly embarking upon generalized computer literacy projects, few educators are sufficiently trained to do more than nominally adopt and mechanically deliver someone else's plan. The fault for this lies with schools of education, especially in the United States where the information technologies have been so firmly established. That is starting to change, and the C.W. Post Center (Long Island University) has begun a major contribution to information technology training for educators. C.W. Post offers a graduate program in "computers in education" to train educators to use computing and information technology in three areas--instruction, administration, and special education. The program is not so much to train educators to become computer experts; rather it is to train educators to continue to be experts in their fields and to learn to use information technology to make them better, more efficient, and more productive educators. The program emphasizes learning about and using information technologies within the pedagogical framework of education, and preparing educators for a rapidly changing technological world. The program provides educators with a sound philosophical base, built on an understanding of what they will be able to do with proper utilization of technology.

Educational Technology (Clayton, John C., Organization of American States, Washington, D.C.)

This paper offers a working definition for educational technology, examines its application, and offers some things to consider for future planning. Educational technology is the application of science to educational objectives. For the educational technologist, a fundamental problem is communication. It is difficult for the technologist to determine the actual (as opposed to expressed) objective of a client. The technologist's role should not be to provide answers, but to provide the skills that will improve the competence of his clients to generate their answers to their problems. As problems appear to be prospering more than solutions, the current policy of providing too many with too little should be reconsidered. The central problem appears to be the inadequacy of our problem-solving capability. Educators must take a more active role in the development and use of this capability for the improvement of the human condition.

Microcomputer Applications in Education (Clouse, R. Wilburn, et al., Peabody College, Vanderbilt University, Nashville, Tennessee)

In examining the role of microcomputers in education, this paper emphasizes techniques and procedures for the implementation of microcomputers in the learning process. Included is information on methods and techniques of introducing microcomputers into education, microcomputers in educational management, and microcomputers in special education.

Teacher Instruction Versus Computer-Assisted Instruction--Increasing Correct Answers With Computers (Davis, Corinne Ray, West Virginia State College, Institute)

This presentation describes a computer-assisted-instruction (CAI) research design by P. Bruce Davis and the elementary school organization and implementation by Tom Bunting and Debbie Gregory. The study's purpose was to examine the effects of fixed-ratio reinforcement on CAI of math problems correctly completed by third, fourth, fifth, and sixth grade students in Kanawha County, West Virginia. The math problems presented by computer were drill and practice of math concepts previously presented by a teacher. The 48 students were referred to the Chapter I Math Laboratory Program at

Spring Hill Elementary School. After an orientation period and pretest (the Wide Range Achievement Test: WRAT), a repeated measures, multiple baseline experimental design was used to test the expectation of this study: the number of math problems correctly completed on a computer by elementary school students can be significantly increased by the use of electronic (video) games as rewards.

The Use of Radio to Upgrade Primary Science Education in Developing Countries--A Position Paper (Engler, Pamela T., University of Maryland, College Park)

This presentation discusses the use of radio in science education in developing nations. The importance of science education to national development is examined, along with scientific literacy, the exploitation of research, and the importation of technology. A review of instructional media and their effectiveness in developing countries investigates differences resulting from use of media, culture, and costs, and teacher attitudes to innovations. Also reviewed is primary science education, including discussions about success and failure of science teaching strategies, projects in developing countries, and current status and trends. Cross-cultural cognitive development research and its application to teaching and learning science are described. Research on using radio to upgrade primary science in developing countries is synthesized, and the areas of teacher involvement, utilization of local resources, adaptation of nonlocal materials, technological requirements, and external and internal support are discussed.

Our Technological World (Galey, Minaruth, Temple University, Pennsylvania)

Are we preparing our students to be effective citizens in a technological society? Technology and society interact to have great impact on our daily lives and, particularly, on our career opportunities. "You, Me and Technology" is a project designed to assist secondary school teachers in teaching about technology and society.

Use of Educational Technology for Dissemination of Educational Materials and Practices (Howe, Robert W., The Ohio State University, Columbus, Ohio)

Recent developments in technology provide alternative strategies for developing and maintaining educational data bases and for disseminating and analyzing information. This paper identifies and describes some of the hardware and software available, describes advantages and disadvantages related to use, and summarizes current developments.

Emphasis is placed on cost-effective use of selected technology and on applications that can be used by a variety of countries. Examples of current use in the United States are described, along with developmental work in Egypt and other areas of the world. Adaptation of the ERIC system for use in other countries and the use of ERIC-produced software for information storage, retrieval, and dissemination are discussed. A bibliography is included.

Teacher Education Using a Multiple Delivery Telecommunications System (Huffman, Stanley A., Virginia Polytechnic Institute and State University, Blacksburg)

This paper is based on the television series "Using Media for Learning," which provides undergraduate and graduate level education through telecommunications to teachers. The 20 television programs in the series were designed for a broadcast schedule of two per week on a quarter system.

Becoming Comfortable with the New Technology: An Action Agenda for Teacher Education (Ingle, Henry T., and Garnette, Cheryl, Association for Educational Communications and Technology, Washington, D.C.)

The Association for Educational Communications and Technology was awarded a 24-month contract to provide training and technical assistance and to disseminate information to state and local education agencies about the new information technology. The technology was primarily applied in basic skills education, and the effort was known as Project BEST (Basic Education Skills through Technology). The major information dissemination channels employed by the project included: (1) satellite teleconferencing; (2) audio bridging; (3) video training modules; (4) electronic mail system; and (5) print support materials.

Computer-Based Training: The State of the Art (Israelite, Larry, Hazeltine Corporation, Virginia)

Information related to the capabilities of sophisticated computer-based systems is presented. Emphasis is placed on writing courseware and on the appropriate uses of computer technology for training.

Computer Programs for International Education (Lee, Helen C., Indiana University-Purdue University at Fort Wayne)

Computer programs whose content supports global education, international understanding, and expanded knowledge of languages and cultures should and can be used by teachers in various subjects. Such content now exists in public domain software, in programs produced by nonprofit institutions, and in commercially available programs. By creating the proper atmosphere and using appropriate supplementary materials, teachers can focus attention on international content. This use of computer learning counteracts the unhealthy emphasis on war, destroying the opponent, and violent confrontation promoted by computer games. Drill/practice and simulation programs illustrate this above thesis, and supplementary materials can enhance international understanding. Examples of such materials at several grade levels, lists of materials and their sources, criteria for evaluating computer programs for positive values of international understanding, methods of integrating programs into existing learning tasks, and easy ways to create useful computer programs are included.

Teachers and Technology (Maia, Nelly Aleotti, Federal University of Rio De Janeiro, Brazil)

This paper is intended to motivate discussions and exchange of views and experiences regarding policy about educational technology. In the last twenty years, we have been subject to an invasion of technology in everyday life, the effects of which in education are significant especially for teachers. First, technology reaches education at a different speed from which it changes other fields of society. Second, we accept more promptly changes in our everyday life routine than changes in education. Third, in developing countries such as Brazil, it is necessary to uproot centuries of pedagogical formalism brought by Catholic tradition and conservatism before education can assimilate technology. Fourth, teachers are not trained by technology, so they resist using it. Last, there are incorrect understandings of what educational technology is or to what extent it is important or significant to education. Further, teachers and educators in general have to face a crucial dilemma--is educational technology an input or an output of the social system?

Education on a Silver Platter: The Videodiscs are Coming (McCann, R. Lawrence, Long Island University, New York)

This paper reports on current technological developments and analyzes trends in instructional technology, an effort to create an approximation of what the classroom of the twenty-first century will be like. Specific predictions on the futures of various instructional media (e.g., motion pictures, audio, print, computers, and video) are presented. Emphasis is on interactive video, particularly laser videodisc systems.

Educational Technology and Teacher Education in Latin America (Rojas, Alicia Mabel, Florida State University, Tallahassee) ED 232 991

Latin American and Caribbean countries have a long history of applying educational technology to improve teacher education. Although the innovations can be considered successful in terms of teachers trained and changes made to the educational systems, the countries are encountering difficulties with respect to the quality of education. Analysis of this situation indicates an emphasis on improving processes, without careful, justifiable linking between the impact of these processes and the useful, desired results. It appears that the results of the educational system (goals and objectives) are considered "valid" without the benefits of formal analysis of organizational impact, of the nature and value of the society for which it is intended, and of the current results being obtained. The paper discusses applying an holistic approach to identify and solve educational problems successfully. The approach focuses on identifying gaps between desired results and selection of the most appropriate processes. This application should lead to the achievement of adequate organizational results and societal impact of the educational systems through the use of educational technology (a process) in the improvement of teacher education (another process).

Combining Microcomputers and Videodiscs for Public School Use (Streibel, Michael, The Pennsylvania State University, University Park)

Microcomputers and videodiscs are being merged into a single technology called intelligent videodiscs. This new technology permits the interaction and text-generating capabilities of microcomputers to be combined with the realism of video and audio sequences. It also allows random access to this visual video information. However, such an increase in flexibility poses a number of problems for the instructional designer, because it multiplies the number and types of communication channels between humans and computers. This paper discusses a number of dialog-design principles, and explains how these principles were incorporated into a videodisc project through the Allegheny Educational Broadcasting Council at the Pennsylvania State University. The project currently permits public school teachers in central Pennsylvania to preview representative segments of language arts instructional television program for kindergarten through grade 12.

Skills Essential to Learning Television in the Classroom (Tomczyk, Chet, Agency for Instructional Television, Indiana)

Television programs that teach skills essential for learning to read, to write, and to compute are being developed cooperatively by educational agencies in the United States and Canada. Samples of this programming and the philosopy behind it are discussed.

Educational Technology for Preservice Training as a Case Study on Teacher Education (Ueno, Tatsumi, Hyogo University of Teacher Education, Japan) ED 232 992

Student teaching at Hyogo University of Teacher Education in Japan consists of a six-week, four-credit course of study taken during the last year of training. The preparation period, though too short to accomplish all its aims, does try to familiarize students with the newest educational technology. Requirements of the preservice educational technology program are: (1) students must receive necessary instruction and practical training in audiovisual techniques and educational data processing; and 2) students must complete a two-credit course at the second grade. The university's Center for School Education Research provides many opportunities for working with the latest equipment and services. Faculty try to maintain close cooperation among all university faculty members, cooperating school teachers, and graduate students for a more effective preservice training program. The training program is described in detail.

The Dissemination and Implementation of a New Instruction Program Through the Use of Television and Computer Technology (Welliver, Paul W., The Pennsylvania State University, University Park)

A model for using television and computer technology to disseminate and implement a new instructional program over a large geographic region is described. This system was developed in response to a widespread need to improve elementary school science instruction in Pennsylvania. The Pennsylvania Department of Education first developed materials to help teachers more easily and effectively involve children in valid contemporary science activities.

However, progress toward introducing these materials into classrooms was slow. This difficulty led to a unique application of television and computer technology. Television programs were produced and broadcast which alerted teachers to the availability of the new instructional materials and helped them effectively use the materials in their classrooms. A related computerized system was developed to diagnose the instructional needs of individual teachers and prescribe resources for their use. Rapid and effective introduction of this new curriculum throughout a large geographic region resulted. Ways in which this procedure has been used with other instructional dissemination projects and how it can be adapted to the resources and needs of other countries are also discussed.

CONCLUSION

Guidelines for the Redesign of Teacher Education

Paul H. Masoner, Dean Emeritus, College of Education,
University of Pittsburgh
David J. Masoner, College of Education,
University of Alabama, Tuscaloosa

The report of the National Commission on Excellence in Education, released a few months ago in Washington, D.C., is but one of many recent efforts of nations around the world to call attention to the vital importance of education realizing human potential and achieving maximum national development. Both developed and developing nations are concerned that education be improved and that there be a continual striving for excellence. It is obvious that efforts to increase the effectiveness of education in achieving the goal of excellence inevitably must involve the teaching profession, and its subsequent improvement.

The theme of the Thirtieth World Assembly of the International Council on Education for Teaching (ICET) is "The Redesign of Teacher Education for the Twenty-first Century." In the Assembly it focused our attention and efforts on a task both timely and critical, if the excellence we seek is to be achieved. We had the opportunity to hear educational leaders from many countries discuss elements of teacher education redesign and reform. We considered the roles of the many players in teacher education improvement: the teaching profession, higher education institutions, government bodies, professional associations, accrediting organizations, business, and industry, as well as society in general. We learned about significant new technological developments and their potential for educational improvement. We participated vicariously in reform and redesign efforts through case-study presentations from many nations. What emerged was recognition of the importance of reform that will meet the challenging needs and problems of our world now and to come, reform that will provide flexibility in a world characterized by change, and reform that will offer excellence in education to all children, youths, and adults.

This paper makes no attempt to summarize all that was said; nor does it deal with all aspects of a redesign of teacher education. These remarks are limited to a series of generalizations, or guidelines, that we believe are essential in redesigning a comprehensive program for preparing professional educators. We are convinced that any redesign effort must deal both with those whom we view as the major resource, the teachers, and also with those who provide leadership and support services, administrators, supervisors, curriculum developers, psychologists, and many others. The task of educating our nations' people is a combined responsibility of all who comprise a school faculty and staff, and we believe that a comprehensive redesign effort must encompass the preparation of all personnel in the education professions.

The guidelines which we offer for consideration are based on the experiences of many nations in developing programs for preparing school personnel. They also are based on research and experimentation conducted in various world settings, on successful models of teacher education in operation, and on the collective wisdom from the many reforms to improve the quality of and access to education. For many comprehensive redesign efforts, this vast reservoir of experience, research, and knowledge can be called upon to put in place programs of excellence that will serve individual and social needs.

It is important to preface the following with a few beliefs, such as: There is no one model program of teacher education, nor should any nation attempt to duplicate exactly any program in existence, regardless of its demonstrated success. We believe that a number of program designs have been shown to be highly effective, and within these, can be identified as essential or important to effective teacher preparation. Thus, those responsible for reforming and redesigning teacher education can take from demonstrated practice and quantifiable research those elements that appear to apply to the specific region or nation and its respective needs and goals.

These guidelines are generalizations; at no point do we suggest that this way is the only path to successful teacher education reform. It is our hope that the guidelines offer useful ideas for and suggest possible approaches to redesign, and that they be viewed as alternatives to procedures that have been unsuccessful.

Finally, we have assumed that reform efforts will be national in scope. Thus, the following observations, comments, and suggestions are keyed to the national scene. However, if efforts are restricted to a different political unit--a state, a province, a region--the generalizations may still apply with modifications. The same would hold in cases where redesign efforts are multinational.

National Policy

A comprehensive national policy for teacher education is an essential foundation for developing effective preparation programs. More than 10 years ago the American Association of Colleges for Teacher Education (AACTE) and the International Reading Association published a monograph entitled "An Imperative: A National Policy for Teacher Education." The monograph pointed out that in the United States:

> Responsibility for teacher education rests in over one thousand higher education institutions, fifty state government education agencies, hundreds of public and private cooperating local school districts, the business sector of the nation, a number of regional and national accrediting agencies, numerous professional organizations all operating in a relatively independent fashion with no

> clearly defined policies to coordinate this vast professional enterprise and to point the way to a level of quality equal to the task assigned by society to the schools.

The statement continued later:

> An imperative need exists for the development of a national policy for teacher education. The policy must merit the confidence of the public and serve as a guide to federal, state, and local agencies; nongovernmental organizations and agencies; professional organizations and associations; colleges and universities; and others who make decisions concerning teacher education. Policy development should focus upon such matters as control, finance, social responsibility, partnership roles, program accreditation, certification, new career patterns, professional competence, evaluation, technology, accountability, experimental programs, and long-range planning and educational forecasting.

While we cannot assume that identical conditions prevail in other nations, it seems likely that in most countries there is a division of responsibility, perhaps even a fragmentation of responsibility, that points to the need for national policy. However, a national policy must be constructed and implemented in such a manner as to be flexible in the development of programs of teacher education, it must allow opportunity for innovation, and it must be adaptable to meet regional and local needs. A national policy provides a broad framework for reform and redesign.

A Global Perspective

Early this year ICET and AACTE published a joint statement entitled "A Global Perspective for Teacher Education." Included in the publication is the following statement indicating the urgency of an educational system that develops in all whom it serves--children, youths, and adults--the knowledge and attitudes important to life in an interdependent world.

> International education is the process by which people acquire a global perspective to explain events in recognition of increasing interdependence of nations and cultures. This understanding is essential to effective citizenship as well as, ultimately, human survival.

All who are involved in a redesign of teacher education must make certain that institutions engaged in preparing educational personnel show commitment to international education. Also, those whom they prepare as teachers, educational specialists, and administrators should have the capacity, the understanding, and the will to develop in their students knowledge and understanding that will help to bring about a world in which people live together in peace and harmony.

The report goes on to say:

> International education would be a high priority of modern institutions of higher education and specifically for teacher education. The achievement of a global perspective demands a vision that transcends national and cultural differences. All humanity is a single species, on a single planet, sharing a common future. To mold this common future is today's educational imperative.

We suggest that in our efforts to improve the education of teachers and others in leadership roles in our schools, the global dimensions of teacher education must have high priority.

Private Sector Involvement

Thoughtful persons everywhere recognize the important link between the private business-industry sector and education. Many of those who complete educational programs from primary school through university become employees in the private sector. Thus, the success of private sector corporations and the economic growth and development of a nation are related to and dependent upon the quality of learning.

As expected, in the United States and some other nations, considerable attention is given to the quality of education--and the quality of teaching--by the private sector as well as by government. Recent studies by a number of commissions and study groups appear to reach the same conclusion--that essential to national development and to economic growth is major improvement in the quality of the educational system.

Selected observations drawn from several studies in the United States illustrate the concern expressed. No doubt similar statements could be drawn from reports issued in many other countries as well. The Business Higher Education Forum, an organization comprised of top level executives of major business firms and higher education institutions, recently issued the report, America's Competitive Challenge: The Need for a National Response. Education received a strong endorsement in the following statement:

> Unless we rebuild our American economy and strengthen our educational system, it will be increasingly difficult--if not impossible--to maintain a just society, a high standard of living for all Americans, and a strong national defense.

The Equality Project, a report issued by the College Board, deals with the development of a national standard for achievement in secondary education. The report makes a number of recommendations concerning the content of high school curricula that have considrable relevance for the preparation of teachers, for their academic background, for their skill in imparting such knowledge, and for their competence in fostering intellectual skills and abilities considered necessary in secondary school curricula for college-bound students.

Still another group, the Task Force on Education for Economic Growth, which included leaders from government, education, and business, spoke forcefully on the need for improved selection and training of teachers and on improved leadership and management in the schools.

These statements and others come from and have the endorsement of leaders in the private sector. It is clear that they are prepared to join with educators to improve education at all levels and to assist in plans and programs designed to improve the quality of teaching. Although elsewhere in this paper we have mentioned the private sector as an important partner in the redesign of teacher education, we thought it important here to make specific reference to the active involvement of the private sector in projects designed to identify educational needs and approaches to educational improvement.

We are not advocating that educators turn over to the private sector our professional responsibility--the design of preparation programs for individuals entering the education profession. Private sector leaders would be the first to admit that the task is not theirs. However, their experience, wisdom, and perspective can add to our knowledge and competence in undertaking this important responsibility. We must not fail to take advantage of their interest, participation, and support.

Planning the Redesign Effort

The undertaking of a major redesign of teacher education requires careful, extensive planning, as the following five points show. Successful results are directly related to the nature and comprehensiveness of the plans, to appropriate flexibility as the need for changes in the plan become apparent, and to adherence to the plan until completion.

A Partnership Effort. Planning should be a partnership effort involving all who have a stake in the educational process. Included should be the following: institutions of higher education, the government at both the executive and legislative levels, the schools, the teaching profession, and the public clientele. As mentioned, among the public clientele is the business-industrial community whose productivity is related to the effectiveness of the educational system and to the quality of the teachers who staff that system. In both the United States and elsewhere are calls for greater cooperation between the business-industrial community and the education sector. Any failure to include this group among the partners in planning for reform in the education of teachers would be a serious omission.

Clarifying Purposes and Outcomes. Early in the redesign effort, a clear, definitive statement should be formulated of the purposes of the task and the outcomes anticipated. It is obvious that the basic purpose is the improvement of the quality of teaching. However, it is important that there be a directing force delineating the outcomes sought and/or expected, e.g., university training for all teachers, re-education of current teaching staff through comprehensive inservice programs, differentiated curricula for teachers in various levels and fields of specialization, advanced programs for the preparation of educational administrators and specialists, graduate level programs for the preparation of teacher educators, a plan of licensing professional education personnel, a process for the evaluation and accreditation of teacher education programs, and so on.

Identifying Issues and Problems. An important aspect of the planning process is the identification of issues and problems to be dealt with in the reform effort including such matters as: relative roles, responsibilities, and authority of the government, higher education, the schools, the profession, and the public in the organization and governance of teacher education; quality standards for selection and admission of candidates for teacher education and the profession; the financing of new and improved programs; teacher tenure, remuneration, and professional status; continuing evaluation and improvement of whatever new programs are developed; the place of experimentation and innovation; flexibility for higher education institutions to develop their own models of teacher education and to engage in continued experimentation and research. It should be noted that many of these concerns may have been treated in the national policy for teacher education. To the extent that they are not included in such a policy statement, or if there is no national policy statement, then they become elements to be considered in the planning process. In addition, even if there is a national policy statement, it is important to review it in the redesign effort and recommend modifications, if needed.

Directing and Monitoring the Reform. Essential to the success of redesign is the designation of one agency to direct and monitor the range of tasks to be undertaken. This agency might be a ministry or department of education, a semiautonomous research organization, or an organization created for the project. In any case, it is necessary to define clearly the role, responsibility, and authority of such a body and to provide for continuous review by an advisory or governing council representing the constituent partners. Of special importance is a continuous liaison with executive and legislative branches of government, as it is likely that their approval and support will be needed for adoption of the reform proposals.

Estimating Staff, Time, and Costs. After the tasks have been identified and described, careful estimates must be made of a timetable in years from start up to implementation, of the personnel requirements, of costs, and of sources of financial, and material support. Because in many countries, perhaps in all, much of the financial support will come from governmental sources, it is again emphasized that a close relationship with government is essential.

Developing a Teacher Education Model

Central to the redesign of teacher education is the development of a number of models of teacher education, the field testing of these models, and a comparative evaluation of their strengths and weaknesses. Remember, neither is there now, nor will there be a single model to be implemented when the evaluations are completed. In addition, opportunity will continue for further research and development. Recognizing that the development of teacher education models is an extensive, complex, and difficult task, the following eight points indicate the nature of the effort and the manner in which it may be undertaken.

Flexibility and Adaptability. In developing a model, two criteria are basic: flexibility and adaptability. Models that are rigid and inflexible and that permit little or no adaptation to local, regional, or national needs mean that an excellent program for one population may be inappropriate or ineffective for another group. Cultural differenes, regional or local economic conditions, ethnic backgrounds, and many other factors are important in the development of primary and secondary school curricula. In turn, the nature of these programs in the schools are significant for the program of teacher education. We need not go on at length regarding this matter.

Identification of Resources. Cataloging the resources needed and their availability is an important early step in model construction. Among the resources are multinational literature on teacher education, research studies, descriptions of successful programs, case studies of regional and national redesign efforts, ongoing exemplary teacher education programs to be studied and observed firsthand, and teacher education leaders and scholars available as consultants. The identification of such a comprehensive array of resources gives almost immediate access to the accumulated successful experience and research in teacher education throughout the world.

Marks of Professional Competence. Another essential element in the development of a teacher education model is a determination of the marks of professional competence that will be sought from the new program. Such descriptions of competence form the basis for the academic and professional program and the clinical experiences that comprise the models. In the United States, there exists a considerable body of literature on competency-based teacher education that can serve as a useful starting point. In addition, it is necessary that designers in each region or nation also identify competencies important to successful teaching in their areas. We shall not attempt here to specify competencies other than to note that some consensus among educators indicates that these should include a liberal education, extensive knowledge and skill in the fields of study to be taught, professional knowledge and skills essential to effective teaching and other professional tasks, and a personal commitment to continued professional growth. A recent brochure published by AACTE, "Educating a Profession: Profile of a Beginning Teacher," offers a useful list of teacher competencies.

Clinical Experiences. In the teaching profession, as in most others, some kind of clinical experience or internship is necessary in preparing individuals for professional practice. Observations of successful programs and recommendations from experienced teacher educators suggest the following: that clinical practice begin early in the period of professional study, that it be followed by practice teaching in a school setting and under the direction of experienced teachers, that it continue through what might be described as an internship, and that clinical practice be integrated into initial employment with supervision to provide an appropriate induction into the profession. Implementation would require careful selection of schools where prospective teachers would be assigned clinical work.

Institutional Environment. The environment in which teacher education occurs inevitably has a significant effect on students planning to enter the teaching profession. Thus, it is important that the university (or other educational unit) show a commitment to programs of high quality, a concern for the preparation of professional educators, and an emphasis on research for new knowledge about education. Also important is the willingness of the institution to develop cooperative relationships with schools in the region, because these schools are clients to the institution and its products, and they are partners in the clinical training.

Inservice Education. Any plan for the redesign of teacher education must include a plan for inservice education. If an improved program of teacher education is put into place, then those already in the profession will require inservice education to bring their qualifications and performance to the same levels anticipated from the new program. Because of the new program's comprehensiveness, inservice efforts should include training not only for teachers at all levels, but also for administrators, supervisors, and other educational specialists. Also, it should build effectively on prior training and experience of these professionals. Inservice programs will require considerable individualization in the face of the varying levels of experience and competence. In addition to upgrading, inservice education should become a part of lifelong education that will enable schools to meet the demands of a constantly changing world.

Length of Teacher Education Programs. How much time should be devoted to the preparation of educational personnel of excellence and with high levels of competence? Experience among nations with long-standing teacher education programs suggest that the targets should be a minimum of university-level training for all teachers, with postbaccalaureate education for master teachers, and with graduate training for educational administrators and specialists. Such targets may be unrealistic in some countries as immediate goals under present circumstances, and in the development of a new program, reality must prevail. However, it is feasible to build future goals into program plans.

Field Testing. When any model of a teacher education program has been developed, an essential aspect is careful field testing, evaluation, and modification before the implementation phase.

Implementation of A New Teacher Education Program

Implementation is crucial to the redesign process and represents an important step in the final determination of the nature of a new model. Models may have been field tested, but they still are untried in the larger educational systems. The care with which the implementation phase is developed, the attention to the many details of operation, the concern with the impact of the new program on professionals and public alike, the ability to anticipate problems and to be prepared to resolve them--all these and more must be given consideration. The following six points describe the implementation phase.

Implementation Schedule. Initially, a number of decisions must be made concerning the nature of implementing a new program. Shall it be established simultaneously throughout a country? Or, shall it be limited at first to certain regions or institutions and gradually include other regions and institutions later? If more than one program is designed, what procedure shall be used to determine where each program shall be implemented? Factors to be considered in such decisions include: the readiness of institutions to inaugurate a new program, the capacity of cooperating school systems to participate in clinical practice programs, the availability of trained professional personnel, and the adequacy of financial resources. All these matters must be considered in decisions concerning the nature, the extent, and the timing of implementation.

Continuing Review and Evaluation. Implementation is really an extension of pilot operations and field testing. Regardless of the nature of implementation, regional or national, complete or selective, continued efforts must be made to review, evaluate, and modify programs being implemented for the first time. This means that plans must include follow-up, evaluation, and improvement, along with qualified staff for these tasks.

Provision of Qualified Personnel. Planners must carefully assess the availability of qualified personnel for the various roles required. Included are: leadership staff in government educational agencies; teaching faculty and administration in higher education institutions; field staff for supervised clinical practice; faculty and staff in the schools. The implementation plan must include an appraisal of available human resources, and training to prepare or upgrade personnel who have less than the required competencies. In a country where there have been minimal requirements for entrance into the teaching profession and where the number of qualified professional teacher educators is relatively small, this may be one of the most difficult tasks of implementation.

Development of Instructional Materials. High priority must be given to the development of instructional materials for the teacher education program. Professional textbooks, monographs, audiovisual materials, and other print and nonprint materials must be available at the outset of implementation. Any implementation effort will be handicapped if outmoded materials or insufficient quanitities are used to induct new professionals. Again, the status of instructional materials will influence the difficulty of implementation.

Inaugurating Inservice Programs. Inservice programs should be inaugurated simultaneously with or even before the preservice program. Through upgrading and retraining of school staff, benefits can be realized before graduates of the new program can enter their first teaching positions. Perhaps nothing can be more demoralizing to the total teaching profession in a country than to have professional class distinctions on the basis of lesser qualifications of those already working in the schools compared with those just entering the profession.

A Public Information Program. Throughout the redesign project and especially at the time of implementation, a public information program is most important. Failure to keep all publics informed--the government, the private sector partners, the universities, the schools, members of the profession, and the general public--could have serious consequences. If full cooperation and support are desired, then all those involved as partners in the project and all clienteles must be informed and must have the opportunity to voice support and concern and their voices must be heard by those responsible for direction and implementation. Care must be taken to ensure accuracy and realism in terms of anticipated outcomes. Extravagant promises not fulfilled can be damaging even to successful programs.

Organization and Administration of Teacher Education

When a new program is developed, a concomitant structure is needed to provide for efficient operation as well as appropriate, continued involvement of all those concerned. In a country where education is administered nationally, administrative responsibility probably should be within a ministry of education or a similar unit of government. In countries where the responsibility for education resides at the state or provincial level, administration may properly be decentralized with some means of coordination. It is not our intention to suggest a specific structure for the organization and administration of teacher education. That decision must be based on individual national considerations and is the responsibility of each country. However, it may be useful to consider the following with respect to whatever organizational plan is chosen. For example, the new program should not add to bureaucratic problems of government. It should not provide another layer in the management of educational programs. It should, to the extent possible, be made to fit into the structure of the current educational system. It should take into account, where applicable, the differing responsibilities of the national government and the provincial or state governments. The new program should provide for flexibility and innovation in operation without destroying its values. The following additional points also should be considered.

A Partnership Organization. Whatever the nature of the organizational structure and the plan of administration, appropriate provision should be made for continued sharing on the part of all the groups in the teacher education partnership--government, universities, schools, the profession, the private sector, and the public. This does not mean that all must be directly involved in the program's operation, as that would be cumbersome and inappropriate. However, suitable roles exist for representative councils as advisors. Futher--and very important--government bodies should not be permitted to exercise authority that denies the academic integrity and freedom of the university, nor should government authority in any way eliminate or weaken the roles of the profession or the public.

Policy Development. The absence of a national policy could place serious restrictions on a national effort to improve teacher education. With a national policy, the administrative officers for the new teacher education program and the advisory council or councils should continue to explore and recommend policy development and/or changes. Areas that require constant scrutiny include: licensing of professional employees of the schools, evaluation and accreditation of teacher education programs, academic freedom and tenure for professionals, criteria for admission to teacher education programs and to the profession itself, and appropriate salary levels.

Financial Support. Financial support and adequate financial controls are also important to the redesign and implementation of a new teacher education program. Regardless of the care and economies planned, more than likely an improved program will be more expensive than the prior program, although it may well be more cost effective. To create an exciting program and fail to support it adequately not only would be a severe handicap and possible waste of resources already used, but also would create a lack of confidence in both the new program and future efforts to improve education. From initial planning through implementation, financial support must be a constant concern and an essential guarantee.

Research and Evaluation. A major responsibility of the administrative authority is that of research and evaluation to continuously monitor the new program and to bring about appropriate modification and improvement. Such efforts should be concerned with both preservice and inservice education for teachers, administrators, and specialists. It should offer encouragement and support to higher education institutions and cooperating school systems to experiment with promising innovative ideas. Such efforts should be coordinated nationally, but would cooperate with and support local efforts. Results of research and evaluation projects would provide decision makers with the information needed for change and improvement.

Concluding Statement

We have synthesized an approach for the improvement and redesign of programs for preparing personnel for the education professions. We have suggested not a prescription to be followed, but essential elements for such efforts. We have attempted to offer a design that is flexible and adaptable to many settings in many nations. The specifics of any redesign effort must be decided by each nation, and must involve a genuine partnership of government, educational institutions, the profession, the schools, the private sector, and the general public. The effort, if it is to be successful, must be viewed as a major commitment to excellence in teaching and as a long-term task that requires the support and continued participation of those concerned with improving the quality of teaching and extending improved educational opportunity to all segments of society.

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ICET Secretariat
Executive Director FRANK KLASSEN
Associate Executive Director JOOST YFF
One Dupont Circle, Suite 616, Wash., D.C. 20036 U.S.A.
(202) 887-0685 Cable: ICETED